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EDITORIAL

CHRISTMAS GREETINGS

As 1960 comes to a close the Festive Season commences and mankind all over the world extends his hand in greetings to his fellow man. Because of differing beliefs—political, racial, religious and educational—mankind has as yet never reached a state of mutual agreement, and yet at this time he greets his fellow man on terms of friendship and enjoyment of the festivities of this annual period.

Amateur Radio is unique in its ability to transmit messages of goodwill from state to state, from country to country, and in so doing maintains a public relationship which could never be done by any other means.

The Geneva, 1959, conference of the International Telecommunications Union illustrated graphically that the Amateur Service was dangerously close to suffering a great loss in frequency space, and if it hadn't been for strong representation by many countries—including Australia through the Wireless Institute's representative (the late John Moyle)—it could have even faced annihilation.

It's to the credit of the Amateur Service that the I.T.U. gave it such a just hearing and took steps to write into the Geneva Frequency Table bands and regulations governing its operation which must remain for all time if the Service continues to justify its existence in the future as it has done in the past. But it must justify its future existence! In the years ahead there is going to be more and more demand for channels for this service and that service, and the Amateur Service will have to justify itself and the use to which it puts its frequency allocations along with every other frequency user.

As far as Australia is concerned its allocation problems have not been finally settled in accordance with the proposed Geneva Frequency Table which is due for ratification in May, 1961. Various frequency users were so unsatisfied with the outcome of the Geneva Conference that the Postmaster-General, Hon. C. W. Davidson, O.B.E., called together a special Ad Hoc Committee known as the Radio Frequency Allocation Review Committee whose task it is to review the allocation to the Australian

frequency users in the light of the Geneva Conference with a view to determining the use to which the frequency spectrum is used in the best National interests of the Commonwealth of Australia. The outcome of this Committee's deliberations will not be known for some considerable time because the entire frequency table must be reviewed. The W.I.A. has a representative on this Committee whose main task is to defend the Amateur Service allocations.

Insofar as the individual Amateur is concerned, his task in the years ahead is a relatively simple one; he must use the allocations granted to him and he must encourage others to do the same. In a country like Australia, with its vast area and limited population, a high percentage of Amateur licensees is of paramount importance. Each of us can assist in this direction. The country is crying out for technical people in every section of the electronic and allied industries. Amateur Radio provides the starting off point, as evidenced by the already high percentage of key technical posts held by Amateurs.

Every Amateur should encourage young people to take up Amateur Radio for it serves a vital need to initiate that first desire to continue the study of electronics which leads a young man (or woman) to pursue his/her course in life in this field. If Amateur Radio only did this (but of course it does a lot more), it is serving a great need in the national interest.

There are many opportunities to interest young people in Amateur Radio; school clubs, the Boy Scout movement (already a body of boys involved in a form of communication) and boys' social clubs. It is here that the future progress of youth is generated. Make it your job to interest one boy in the hobby of Amateur Radio next year and you will see the fruits of your effort. If the 4,000 odd licensees in the Commonwealth of Australia did this, and each was successful in his "candidate" becoming an Amateur, the present number would double itself in one year.

To protect our future is our own responsibility. Let's start in 1961.

A Merry Christmas to you all.
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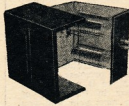
The AR-3 covers frequencies from 550 Kc. to 30 Mc. in four bands, clearly marked on the slide-rule dial. Designed for high circuit efficiency and ease of assembly, the AR-3 combines good sensitivity and selectivity with flexible overall operation. The power supply is transformer operated for safety and high efficiency.

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Capable of handling power input up to 200 watts, the B-1 may be used with transmitters and receivers covering 90 through 10 metres. No adjustments required.

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Described here are just a few of the HUNDREDS of Heathkits available for Testing, Hi-Fi, Amateur Radio, Marine, etc.

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Wgt.: 12 lb. Size: 5½ x 8½ x 13 in.

PRICE: £44/12/0

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CAPACITANCE METER

M. NICHOLS,* VK3ABO

IN these days of the increased use of small capacitors in radio equipment, I have found it necessary to have a suitable instrument to measure them. After a recent experience of going through hundreds of mica, ceramic, and air dielectric types, looking for the particular value of components I required, and endeavouring to decipher the various color codes (of which I have an innate distrust anyhow, there being so many systems in use, particularly among disposals equipment), I finally stopped and started to think if there was not some cheap and effective way of solving the problem.

After considering the many ways by which these capacitors could be measured, I decided to put a few ideas, gathered from various sources, together into something practical.

As can be seen from the circuit, it is based on our old friend the grid dip oscillator and a mutually coupled test oscillator.

Capacitor C8 should be of the straight line frequency type, a single gang broadcast type with two-thirds of its plates removed will do nicely. The distance between L1 and L2 should be about 2 inches, or a distance which will just permit the dip indication to be observed when the test circuit is resonated. The meter can be any of the various disposals types readily available between 500 μ A. and 2 mA.

Having built the "thingummy," switch it on and stand back. After a few seconds M1 should indicate that the oscillator is going. With no condenser fitted at point CX, put C8 in full mesh or maximum capacity, and adjust C1 till a dip is indicated by M1.

You are now ready to calibrate. Take a handful of capacitors of known value (if you can read their markings!), fit

them one at a time across the points CX and calibrate the dial of C8 according to the new indication of resonance by M1.

This instrument is primarily intended for the measuring of capacitors from 0-1,000 pF, but useful indication can be obtained to 10,000 pF. Accuracy is within 5% to 1,000 pF.

Frequency of oscillation is not important, but if circuit details are followed it will be about 4 Mc.

The instrument can be built for about 30/-, but I, like most Hams, spent a while scratching in the junk box like the proverbial chicken and after about ten minutes came up with the necessary bits.

About three hours later, whistling with glee, I was further scratching, this time in corners after the many condensers I had flung with many nasty curs words, several hours earlier, and in about ten minutes had retrieved enough to more than pay me for the trouble in building the gear—and I still have the "thingummy" for the next time.

Several of my friends have now built this gadget, and none have reported any difficulty. So heads down, fellows, and like the chicken, start scratching!

[The suggestion is offered that it would be practical to build only the front end of this device, so arranged that it could be plugged into an existing g.d.o., which would then serve as the back end of the unit. If this idea was adopted, it would be necessary to ensure that the input plug system adopted would not introduce stray and variable capacitance into circuit, thereby upsetting calibration. A rigid-lead system would be required.—Ed.]

1 By plotting a graph through the calibration points obtained, a more accurate calibration would result. Condensers are generally sold with a plus or minus 10% tolerance.—Ed.

* 30 Taylor Street, Clayton, Vic.

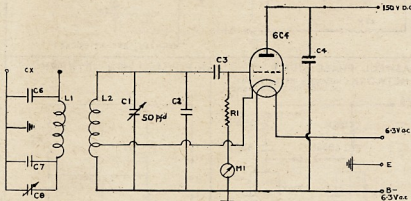


Fig. 1.—Capacity Meter.

C1—100 pF.
C2—100 pF, silver mica.
C3—47 pF, silver mica.
C4—10,000 pF, 350V d.c.
C5—2 μ F, 600V d.c.w.
C6—100 pF, silver mica.
C7—47 pF.

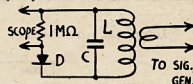
C8—100 pF, variable, a.i.f.
C9—400 pF.
R1—33K ohms.
R2—47K ohms.
M1—500 μ A. to 2 mA.
L1—26 turns closewound, 3/4 inch diam.
L2—30 turns, spaced 2 inches, tapped 8 turns.

Winding Coils for Low Frequencies

TO wind coils for low frequencies, particularly where a grid dip oscillator covering these frequencies is not available, the problem arises—when are the turns right, etc.

The author's idea was to use vacuum tube voltmeter, loosely coupled to the coil under test, to measure a rectified r.f. voltage developed from an external source. This didn't work, so a c.r.o. was tried, and presto! Eureka.

Across the main winding put an empirical value of condenser. Shunt this with a germanium diode and resistor in series, and measure the rectified voltage developed across the resistor. Apply this to the vertical plates of the scope, and set the sweep frequency for a sub-multiple of the signal generator modulation, say 200 c.p.s. for a 400 c.p.s. modulation as in standard service generators. Wind a two-turn link around the coil and couple output of signal generator to this, set attenuator flat out. Adjust generator for maximum deflection, being sure to get the fundamental and not a harmonic. Biggest deflection is fundamental. Adjust coil turns or condenser until desired frequency is obtained.



D—0A70, 79 or 81.
C and L—See text.

A "Q" multiplier coil was wound on a Ducon ferrite toroidal former using the above method. Frequency was 600 Kc. initially, and after a few minutes trying different values of condenser, we settled for 182 pF. with 63 turns. Of course in the actual circuit, allowance must be made for tube input capacity and strays, so this is about 165 pF. plus a trimmer.

Some generators go down to 150 Kc. so coils wound to this frequency can be easily wound using this method (but of course you must make friends with your local t.v. serviceman). The actual job only takes about half an hour, per coil, and there is no reason why special high selectivity i.f.'s, etc., cannot be wound on these toroidal formers—it is just too simple—with the right gear.

To set it up for 85 Kc., use the b.f.o. coil from a BC453, in a simple oscillator and modulate with an audio tone. This then becomes the signal generator, and home-made i.f.'s can be easily wound.

G. Clarke, VK3EG.

MORSE TESTS

Commencing on Tuesday, 5th October, and every second Tuesday of each even month, ZKF started Morse Tests on behalf of the N.Z.A.R.T. Test consists of five minutes plain language at 15, 20, 25 and 30 w.p.m., commencing at 1900M hours. No other transmissions will be made on these schedules.

Frequencies of operation are 3324 and 6885 Kc. Time 1700K (E.A.S.T.)

Super Simple Sideband

IAN MacMILLAN,* VK3ZDG

ON building my second sideband transmitter, and getting it to go, I found that I had a very nice brew of s.s.b. and being charmed by the utter simplicity of it all, I decided to write it up for "A.R."

The circuit is basically that of W6EI, published in the 14th edition of the "Radio Handbook," adapted for locally available parts and material.

The exciter itself uses only four valves, from microphone to s.s.b., and the description will be divided between the r.f. section and the audio section.

THE AUDIO SECTION

This comprises an EF86 (or any other favoured tube) as a microphone pre-amplifier, a 6C4 as an audio amplifier, and a 12AT7 as a pair of cathode followers.

Only one non-critical transformer is used, and a commercially available phase shift network is employed, although values are given for those who

would rather brew their own. Provision is made for painlessly switching to either sideband, or for true a.m. (d.s.b. plus carrier).

It is suggested that T1 be a plate to 600 ohm line output transformer, as found in many disposals equipment, but almost any audio step-down transformer will do, from 2:1 to 10:1 in turns ratio. Some transistor interstage transformers (not the miniature ones) may do. A phase splitter is another alternative, and if this idea is used, it is suggested that one of the double-triode types be employed, because of their better balance.

The 2K linear potentiometer across the secondary of T1 may be replaced by a 500 ohm potentiometer with a 1,500 ohm resistor connected to one side and a 270 ohm resistor to the other. The end of the 1,500 ohm resistor should go to pins 1-5 of the phase shift network, and the end of the 270 ohm resistor to pins 3-7. This will bandspread the control, and make adjustment easier.

Linear carbon pots., incidentally, have the letter "A" following the value, while ordinary logarithmic pots. have the letter "C".

The 2 μ F. 200v. capacitors are Micro-cap types. Electrolytics should not be used because of leakage, but if you've got the room for some old fashioned "blocks" out of your junk box, by all means use them.

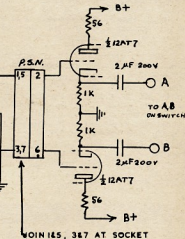
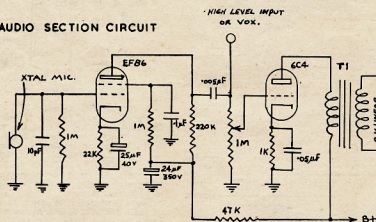
The pair of 1K ohm resistors in the cathode of the 12AT7, and the pair on the other side of the audio switch, should be fairly well matched, and a check with the ohm-meter is in order.

THE R.F. SECTION

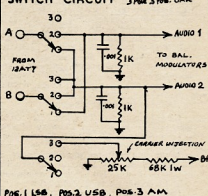
This consists of a 12AU7 crystal oscillator (or a v.f.o., or to taste) driving two germanium diode balanced modulators and utilising an R/C phase shift network for the r.f.

The r.f. phase shift network is a bridge type, with C1 and R1 providing +45°, C2 and R2 -45°, the resultant voltage being 90° with respect to the

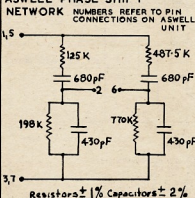
AUDIO SECTION CIRCUIT



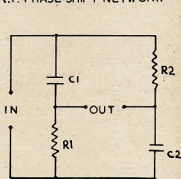
SWITCH CIRCUIT 3 Pole 3 Pos. OAK



ASWELL PHASE SHIFT NETWORK



R.F. PHASE SHIFT NETWORK



input voltage. The only thing you have to know is that $X_c = R$ at the frequency of operation.

At 4.6 Mc. (which is the frequency I used), $R = 51$ ohms (go through a few 47 ohms 5% I.R.C. types), $C = 680$ pF. $\pm 5\%$ (select a couple the same with the aid of the bridge you'll find at many radio parts stores; if no bridge, don't lose any sleep over it).

Don't let the balanced modulator circuit scare you—just look at the layout diagram! By the way, when soldering R_1 and R_2 into the circuit, use a pair of pliers as a heat sink to avoid changing their values. The tuned circuit has not been described, as the details will depend on the size of your former, the type of slug, and whether or not it is shielded—not to mention the frequency. I had 16 turns on $\frac{3}{8}$ " diam., but use a g.d.o. for this job.

GETTING IT TO GO

1. Equipment required:

- One receiver,
- One head (well screwed on).
- One source of audio (whistles in mike; preferably audio oscillator, b.f.o. note from another receiver, what-have-you).

2. Equipment NOT required:

- Cathode ray oscilloscope,
- Vacuum tube voltmeter,
- Electro-encelograph,
- Geiger counter,
- Digital computer,
- Super sine wave oscillator.

Note.—If you have c.r.o.'s, etc., know how to use them, you won't be reading this, and if you staunchly maintain that you cannot align an s.s.b. exciter without elaborate equipment:

- You've never played with one,
- You've never tried to align one without gear,
- You don't have (b) in 1 above.

Now having been moderately facetious, let's get down to tinkacks. Connect a piece of shielded wire, centre to slider of the 200 ohm sideband balance pot., outer to earth (common point in diagram). Hook the other end to your receiver and tune the latter to the crystal frequency. Apply voltage (very well filtered B+) to the exciter. Turn b.f.o. on, receiver on. Adjust oscillator coil for maximum output. Make sure the function switch is on one of the sideband positions and then adjust the carrier balances for a null (the two 1K pots.). If you can't get a null, you've either made a blunder or you've got a

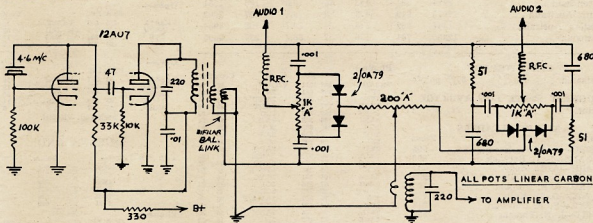
poor diode somewhere. If you can, it should be quite sharp. If the best you can do leaves a carrier with a T5 note, your h.t. is not filtered enough, or heater voltage hum is appearing. Your carrier has gone, but you are left with a couple of 50 or 100 c.p.s. sidebands. If these are fairly weak in the receiver, don't fret too much, as odds are they won't be very strong on the transmission.

Now pipe some tone, the sine-r the better, into the mike input, keeping the level down. Make it about 1 Kc. If you can (C above middle C on your piano is about 1280 c.p.s.). Turn the b.f.o. off on the receiver and adjust the sideband balance control (200 ohm pot.) and the audio balance (2K, or 200 ohm with series resistors) for minimum audio tone. Put the function switch in the other sideband position and repeat.

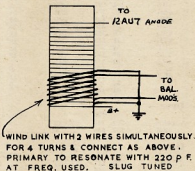
Go back and forth between the two sideband positions, making the adjustments until you have gone as far as you can go. Now turn the b.f.o. on and you will find that one sideband is much louder than the other. Identify the weaker sideband's note and adjust again to remove it. Swap sidebands and do this again until one sideband is way down and the other is paralytic, and this situation exists no matter which

(Continued on Page 9)

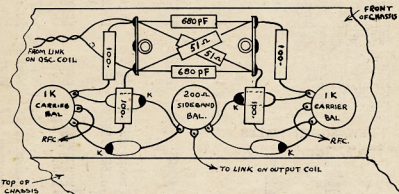
OSC. & BALANCED MODULATOR CIRCUIT



OSC. TO BAL. MOD. COIL



LAYOUT—BALANCED MOD. & R.F. PHASE SHIFT NETWORK



TASMANIA TAKE HONOURS AGAIN

CONGRATULATIONS go to the Tasmanian Division for winning the Memorial Trophy for the second time in succession from the Western Australian Division. Tasmania had the highest participation percentage of all the States, the second highest State log average, but was nearly bottom so far as the average of the top six logs is concerned. Despite the vast difference in the number of licensees between the States, there was very little difference between the number of logs entered from four of the six States.

All sections of the Contest were keenly contested and many fine scores were recorded. Highlights of the Contest were the high log scores achieved by VKs 2AHF, 5FT and 0WH in the Phone Section; VKs 5NQ and 6RU in the Open Section, and Messrs. Grantley, Smythe,

Wehr and de Balfour in the Receiving Section. All these had scores over 1,000 points. VK2QL's score of 552 in the C.w. Section was the highest for some years. The Northern Command Signals Amateur Radio Club's score of 1,350 in the Receiving Section was commendable as a group effort.

The repeated wins over the history of the Contest by the numerically smaller States shows how difficult it is for the larger States to win the Contest under the present scoring system. Much thought has been given to this matter in the past, but no new formula has been devised to make the Contest more equitable. The Federal Contest Committee would greatly appreciate any concrete suggestions for improving the scoring system in this very popular Contest.

REMEMBRANCE DAY CONTEST 1960 RESULTS

State	Total Score	Average Top Six	Licensees	Log Entry	Percentage	State Log Average	Total State Points
New South Wales	16735	856	1390	84	6.04	199	1887
Victoria	20797	844	1261	86	6.82	247	2262
Queensland	8914	665	443	48	10.8	186	1631
South Australia	17870	919	478	78	16.3	227	3802
Western Australia	13444	862	274	84	30.7	160	4984
Tasmania	12330	781	136	52	38.2	237	5495

STATE TROPHY

Tasmania 5495 points

HIGHEST STATE LOG AVERAGE

Victoria 247 points

SECTION LEADERS

Open—	Points
VK2BO—E. L. Andrews	908
3ALZ—I. F. Berwick	806
4RH—A. L. Hoey	747
5NO—L. H. Vale	1227
6RU—J. E. Rumble	1105
7DK—D. H. Kelly	750
9XK—S. R. Coleston	213
0IT—I. N. Thomas	330
Phone—	Points
VK2AHH—N. A. Hanson	1011
3APJ—P. J. Dettman	971
4UX—C. P. Singleton	958
5FT—F. K. Tapley	1049
6CL—I. H. Clinch	966
7RX—K. A. Johnston	971
0WH—H. L. Wright	1920

C.w.—

VK2QL—F. T. Hine	552
3ZA—L. T. Frith	207
4JF—J. C. Files	217
5BS—K. D. Halsall	466
6VK—V. J. Kitney	276
7ZZ—I. A. Nichols	227

NEW SOUTH WALES

Top Six Logs—	Points
VK2AHH	1011
2BO	908
2RS	882
2DO	878
2AHM	771
2PN	681

Phone—

Cont. Pts.	Cont. Pts.
VK2AHH	338 1011
2PN	243 681
2YN	209 569
2AEB	177 369
2AF	159 306
2AXI	163 306
2OH	148 360
2VU	118 306
2SL	109 296
2XP	102 281
2AIA	98 271
2ASQ	67 250
2CK	93 248
2AIM	101 241
2AGJ	87 216
2AWF	101 215
2JS	71 202
2DE	100 177
2AC	74 164
2ACD	59 163
2MW	53 137
2AJO	64 137
2AP	42 136
2ALV	59 134
2ADL	33 122
2AB	60 126
2ADB	39 126
2EY	66 110

Open—

Cont. Pts.	Cont. Pts.
VK2BO	299 908
2RS	297 882
2DO	259 879
2AHM	251 771

C.w.—

Cont. Pts.	Cont. Pts.
VK2QL	179 552
2EL	112 336
2YB	124 349
2AXK	96 267
2AKB	67 210
2IC	62 170
2TC	50 142
2HV	47 140
2OW	33 136
2EO	27 72
Check Log: VK2NF.	

Top Six Logs—

VK3APJ	..	.....	971
3ADW	..	.....	900
3AXT	..	.....	856
3ALZ	..	.....	806
3AIT	..	.....	790
3AUG	..	.....	740

Phone—

Cont. Pts.	Cont. Pts.
VK3APJ	331 971
3ADW	321 900
3AXT	303 886
3AIT	269 790
3AUG	249 740
3UW	221 644
3JW	188 553
3LW	202 552
3AZM	176 484
3BB	137 487
3VL	183 448
3ABT	154 426
3QV	142 426
3DB	180 423
3AUL	149 400
3KC	158 387
3EF	150 385
3JL	147 383
3AHA	141 379
3AGD	100 314
3NU	123 307
3WB	108 297
3AD	105 283
3ARJ	100 280
3AF	101 272
3GW	111 271
3ATR	61 265
3DQ	94 257
3DZ	100 239
3ADL	93 238
3ATP	80 234
3JL	90 230
3YQ	74 217
3ASB	60 216

Open—

Cont. Pts.	Cont. Pts.
VK3ALZ	255 806
3APV	125 399
3KB	130 384
3XE	120 278

C.w.—

Cont. Pts.	Cont. Pts.
VK3ZA	90 297
3AFQ	47 122
3XC	43 117
3ARX	63 109
3NK	46 97

Check Log: VK3MIL.

QUEENSLAND

Top Six Logs—

Top Six Logs—	Points
VK4UX	958
4RH	747
4WJ	728
4ZB	505
4OM	539
4TM	425

Phone—

Cont. Pts.	Cont. Pts.
VK4UX	350 958
4WJ	323 728
4OM	188 539
4TM	153 425
4ZB	132 425
4BB	101 291
4UR	121 259
4S	84 254
4NS	82 246
4BQ	85 223
4PH	71 219
4HC	37 197
4NG	61 176
4XR	62 141
4ZZ	60 145
4LB	41 128
4LA	34 108
4WO	41 106

Open—

Cont. Pts.	Cont. Pts.
VK4RH	278 747
4ZB	203 595

C.w.—

Cont. Pts.	Cont. Pts.
VK4JF	79 217
4KE	62 106
4M	60 165
4SD	45 134

SOUTH AUSTRALIA

Top Six Logs—		Points
5KTN	1227	
5FT	1049	
5WO	1013	
5MS	778	
5TU	759	
5WC	688	

Phone—	Cont. Pts.		Cont. Pts.
VK3FT	360 1049	VK5CJ	55 91
5MS	290 778	5BG	38 28
5QX	233 808	5SS	48 87
5XM	204 607	5JN	32 86
5FE	176 759	5TN	35 79
5GG	123 544	5PS	20 69
5AV	198 543	5XU	18 66
5EW	174 528	5WI	17 63
5JC	123 355	5TW	23 53
5EF	120 346	5BA/P	11 50
5LQ	76 281	5PZ/P	10 49
5IM	82 264	5DY	20 39
5TM	122 240	5XA	24 35
5TJ	79 225	5DO	19 28
5GF	100 225	5CO	14 27
5L	78 176	5B	25 26
5LC	63 162	5XA	20 26
5DF	75 154	5KX	18 24
5OK	77 146	5EQ	16 21
5HA	77 146	5M	16 20
5WH	34 142	5HU	5 20
5OV	67 130	5HU	5 20
5RR	49 128	5UT	10 21
5KV	45 127	5ON	11 11
5JO	27 118	5PU	10 10
5OC	37 96	5YX	5 5
5KY	26 91		

Open—		Cont. Pts.			Cont. Pts.
VK3NO	" "	422 1227	VK3JT	" "	100 288
5WO	" "	339 1013	5LD	" "	75 127
5EU	" "	321 759	5KU	" "	49 127
5WC	" "	264 688	5HM	" "	40 102
5TC	" "	176 759	5JG	" "	37 91
5FY	" "	117 304	5NQ	" "	38 83
			5EV	" "	5 10

C.W.—	Cont. Pts.	Cont. Pts.	
VK5BS	155 466	VK5TL	40 108
5XK	147 403	5RK	28 93
5MY	116 342	5BZ	24 84
5BP	72 224	5JE	37 80
5FM	80 213	5RX	22 79
5OR	41 131	5MZ	22 52

C.W.—

	Cont. Pts.		Cont. Pts.
VK6VK	107 276	VK6RP	10 22
6AJ	80 230	6MF	9 23
6WW	38 117	6EF	7 19
6WT	25 61	6JA	7 16
6UF	11 32	6DF	8 14
6IG	10 27	6KX	6 13

Check Log: VK6GD.
Ineligible: VK6ZAL.

TASMANIA

Top Six Logs—		Points
VKTRX	871	
7M	848	
7MF	778	
7DK	750	
7SM	673	
7KA	666	

Phone—	Cont. Pts.		Cont. Pts.
VKTRX	362 971	VKTFP	26 53
7RL	311 848	7PJ	28 47
7MF	301 778	7WJ	21 46
7MS	284 617	7JD	10 36
7SP	236 506	7CP	10 29
7AI	184 456	7JC	17 27
7M3	129 353	7C	22 26
7DW	131 377	7JO	14 22
7CK	91 358	7AB	14 21
7TT	153 353	7FM	9 19
7XL	129 353	7BJ	9 18
7LL	111 216	7RM	18 18
7MY	54 130	7BT	12 16
7DS	44 119	7AL	6 15
7DA	84 100	7TE	14 14
7BQ	42 98	7LE	12 13
7DR	14 70	7SJ	6 12
7FJ	53 70		

Open—	Cont. Pts.	Cont. Pts.	
VKTDK	303 750	VKTWA	138 422
7SM	256 673	7MZ	125 251
7KA	237 666	7YY	52 153
7KS	234 655	7GV	29 43
7LZ	165 496	7YL	7 32

C.W.—

Cont. Pts.				Cont. Pts.			
VK7ZZ	..	..	83 227	VK7JB	..	..	30 74
7RY	..	..	86 215	7AG	..	..	19 40
7LJ	..	..	80 210	7CH	..	..	8 21
7BJ	..	..	53 135				

L3042	E. Trebilcock	601
	M. Cadzow	512
L3009	E. G. Hutton	471
L3074	J. M. Hilliard	446
L3006	I. R. Woodman	411
L3076	R. Young	407
L3077	D. Fraser	401
L3086	C. J. Walker	381
	F. Seeber	268
L3072	T. Hayward	167
L3067	J. Donald	120

Queensland—

Northern	Command	Signals
Amateur Radio Club		1350 pts.
C. T. Taylor		496
H. O'Neill		318
WIA-L2136/VK4 A. Westcott		307
L2401/VK4 J. G. Sheard		269
T. A. Lane		253
L. O. Tully		244
J. F. Easlea		206

South Australia—	Cont. Pts.
WIA-L3026	G. Smythe 1098 pts.
	K. A. Wehr 1028
L5030	T. Hutchesson 734
	K. L. Muncy 694
L5020	F. W. Aslin 528
	Miss O. J. Martin 507
L5034	H. J. Harvey 442
L5031	C. M. Hutchesson 374

Western Australia—	Cont. Pts.
D. Wedemeyer	613 pts.
WIA-L5003	F. H. Price 590
L5005	D. S. Pratt 508
	P. Drew 437
L5002	Mrs. R. S. Hardwick 413

Tasmania—	Cont. Pts.
WIA-L7004	R. A. de Balfour 1195 pts.
	R. E. Rogers 835
L7010	G. Johnston 473
L7007	M. L. Jenner 122
	G. Ranft 118
L7013	N. Fisher 113

NATIONAL FIELD DAY, 1961

The National Field Day Contest for 1961 will be held on Saturday, 11th, and Sunday, 12th February, 1961. Rules are the same as for the 1960 Contest and will be published in the January issue of "Amateur Radio."

Sections in the Contest are as follows:

- Portable/Mobile Transmitting, Phone.
- Portable/Mobile Transmitting, C.W.
- Portable/Mobile Transmitting, Multiple Operators, Open.
- Fixed Transmitting Stations working Portable/Mobile Stations, Open.
- Reception of Portable/Mobile Stations.

Last year's Contest showed an increased popularity and it is hoped that this year's will be even better—and drier! There is a section in this Contest to suit everyone so start preparing now for it and make this Contest the best yet.

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WESTERN AUSTRALIA

Top Six Logs—		Points
VK6RL	1105	
6H1K	937	
6KWC	781	
6WD	729	
6AD	653	

Phone—	Cont. Pts.		Cont. Pts.
VK6CL	775 966	VK6GU	20 44
6KW	303 781	6VM	20 44
6WD	265 729	6WM	15 41
6AD	252 653	6LS	14 40
6BU	140 397	6JC	14 40
6WL	132 341	6KJ	15 40
6XO	131 339	6MK	13 39
6XR	130 332	6JG	13 39
6GH	115 315	6BS	15 34
6CW	102 285	6DX	13 33
6CS	101 280	6IS	14 29
6B	90 265	6W	15 28
6CR	84 224	6TY	12 28
6TK	77 182	6AL	10 28
6B	72 183	6ER	7 26
6TB	60 168	6H1R	9 22
6RX	61 156	6XP	10 25
6GW	55 136	6F	8 23
6KH	50 135	6ML	10 22
6CP	55 135	6FG	7 21
6MA	45 107	6OJ	7 20
6AG	39 106	6RO	7 20
6CA	37 102	6DC	9 20
6RW	32 96	6CM	8 19
6W	31 96	6BA	7 19
6BN	30 85	6VB	7 17
6NF	33 82	6GL	8 17
6TL	26 70	6YL	6 17
6B	24 69	6SJ	15 15
6CN	20 57	6KU	8 15
6BE	20 52		

Open—		Cont. Pts.		Cont. Pts.			
VK6RU	428	1105	VK6JM	.. ..	83	186
6HK	352	937	6RS	.. ..	28	72
6SM	216	575	6WU	.. ..	16	38
6PH	181	494	6JK	.. ..	16	36
6ZZ	120	320				

PAPUA/NEW GUINEA

Open—	Cont. Pts.
VK9KK	64 213
Check Log: VK9RM.	

ANTARCTICA

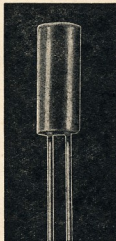
Open—	Cont. Pts.
VK0IT	55 330

Phone—	Cont. Pts.
VK0WH	330 1920
0CX	36 216

RECEIVING SECTION

New South Wales—		Points
WIA-L2022	D. Granley	1021 pts.
L2025	D. C. Hayes	787
	A. J. McHugh	703
L2211	R. C. Abernethy	588
L2064	A. Mullen	508
L2033	D. W. Shephard	577
L2074	B. P. Carroll	545
L2204	S. Ferry	523
	R. B. Pinning	361
	T. F. O'Donnell	345
L2069	K. Dunham	289
L2194	A. Bruce-Smith	247
L2129	R. E. Gilbert	237
	F. Vernon	219
L2001	B. J. Smyth	211
L2160	M. Richardson	203
L2143	R. D. Butcher	146
L2210	H. D. Russell	135
L2034	T. G. Phillips	92
L2159	R. Thompson	40
L2052	T. Mills	11

Victoria—	Cont. Pts.
P. A. Barclay	972 pts.
I. Drylie	730
WIA-L3065	I. D. Thomas 651
L3055	M. R. Cox 643
	F. Baarda 634
L3089	J. Jobson 616



zener diodes

voltage
stabilisation
down to
exceptionally
low currents

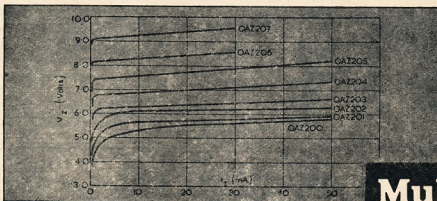


5% Tolerance Range	VOLTAGE (V)		
	Nominal	Min.	Max.
OAZ200	4.7	4.4	5.0
OAZ201	5.1	4.8	5.4
OAZ202	5.6	5.3	6.0
OAZ203	6.2	5.8	6.6
OAZ204	6.8	6.4	7.2
OAZ205	7.5	7.1	7.9
OAZ206	8.2	7.7	8.7
OAZ207	8.1	8.6	9.6

15% Tolerance Range	VOLTAGE (V)		
	Nominal	Min.	Max.
OAZ208	4.2	3.3	5.0
OAZ209	5.1	4.4	6.0
OAZ210	6.2	5.3	7.2
OAZ211	7.5	6.4	8.7
OAZ212	9.1	7.7	10.6
OAZ213	12.2	9.4	15.0

Voltage stabilisation down to exceptionally low currents is provided by Mullard Zener Diodes. This feature is particularly marked in the higher voltage types where stabilisation is provided at currents as low as one milliamp. In all types the dynamic impedance is low and the zener characteristic is very sharp.

Two ranges of these diodes are available. One with approximately $\pm 5\%$ tolerance voltages, and the other with approximately $\pm 15\%$ tolerance voltages. In both ranges the change of zener voltage with temperature is only very small, and the operating temperature is from -55 to $+150^{\circ}\text{C}$.



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THE CRYSTAL CALIBRATOR No. 10

SUPER SIMPLE SIDEBAND

(Continued from Page 5)

A beat frequency r.f. generator is available on the English disposals market which may be of interest to Hams who need a compact measuring device. It was built for use with the No. 62 set and plugged into a socket on this set.

A v.f.o. covering from 250 to 500 Kc. is fed into a mixer through a band pass filter which filters out all the harmonics. A harmonic generating crystal oscillator of 500 Kc. is fed into the same mixer—these harmonics extend at least to 30 Mc. Thus for every crystal harmonic, there are two resultant frequencies produced at the output of the mixer.

A little simple arithmetic will reveal that for every dial position there will be four calibrations marked, and to complete the reading one simply places an even megacycle figure before the calibration.

For example, when the v.f.o. is on 380 Kc.:

Odd crystal harmonic (say 2.5 Mc.) plus 380 Kc. from v.f.o., gives 2835 Kc.

Odd crystal harmonic (say 2.5 Mc.) minus 380 Kc. from v.f.o., gives 2120 Kc.

Even crystal harmonic (say 3 Mc.) plus 380 Kc. from v.f.o., gives 3380 Kc.

Even crystal harmonic (say 3 Mc.) plus 380 Kc. from v.f.o., gives 2620 Kc.

These calibrators are advertised in "Wireless" and can be obtained from the various advertisers.—Ed.

On the dial, the figures, in this case, .835, .620, .380 and .120, appear underneath each other. Each division on the dial represents 2 Kc. irrespective of the harmonic being measured, and interpolation to read 500 Kc. is quite easy. As always an absorption type wave-meter must be used when the harmonic is in doubt.

In the grid circuit of the crystal oscillator there is a neon tube arranged to discharge at the rate of about one c.p.s. This enables the output of the meter to be positively indicated and it sounds something like WWV.

There are three tubes plus the neon, two 1T4 types and one 1R5. There is no provision for mixing the output of the meter and the signal to be measured, so a receiver is necessary to hear the best note.

The power supply needed is 12 volts d.c. for the filaments (there seems no reason why these could not be changed for 1.5v. operation) and about 300v. h.t.

Physically the unit is quite small, it measures 7 x 7 1/2 x 4 inches deep, and is very robust indeed. It arrived complete with carrying case, cables and spare valves, and was in new condition just like the advertisement stated. Test instruments apparently are not subject to customs duty, and the cost, including postage and customs agent's fee, was under £10.

—P. C. Ryan, VK3AZR.

★

"CQ" WORLD-WIDE S.S.B. CONTEST

The Contest commences 1300 GMT, SAT, 28th Jan., 1961, and concluded at 2100 GMT, Sun, 29th Jan., 1961, with only 24 hours of operating permitted.

The object is to work as many stations and as many prefixes on s.s.b. as possible (VK1, VK2, VK3, etc., count as separate prefixes).

Only one contact with any one station permitted, and no multipliers for multiband operation allowed.

The six hours of non operation must be consecutive, and must be clearly designated in the contest log. (Logs not indicating the six hours' silence period will be disqualified.)

Scoring: Each station must exchange the usual Q and S report, followed by contact number, e.g. 59001, 59002, etc. All times to be shown in GMT.

Final score obtained by multiplying the number of different stations contacted by the number of different prefixes worked.

Include on separate sheet, operator's name, address, equipment details, number of stations contacted, number of prefixes worked, and final score.

A trophy to be highest world scorer, plus certificates to highest scoring contact in each Australian call area.

Logs must be returned to "Sideband" Editors, 12 Elm Street, Lynbrook, N.Y., not later than 30th March, 1961.

"OK" DX CONTEST

1. December 4, 1960, 0000 GMT to 1200 GMT.
2. C.w. only. (VK stations to contact OK stations.)

3. Bands: 2.5, 7, 14, 21 and 28 Mc. (one contact with each station on each band).
4. VK stations to call "TEST OK".

5. Exchange six figure number group (RST and three figures representing number of contact).

6. Three points for complete two-way contact.

7. Logs to be sent direct to Czechoslovakia Central Radio Club, Box 69, Prague 1, Czechoslovakia, mailed not later than 15th Jan., 1961.

8. Separate logs required for each band, and each shall contain this data:
9. Date, time, stn. worked, nr. sent, nr. received, pls. claimed, and this statement—

10. "Herewith I declare that I have observed the rules of this contest as well as the regulations of the license authority in my country and that all the data stated in this log is true."

sideband is selected. You now have pretty reasonable s.s.b., and your mate who owns a c.r.o. may pull his head in if you get him to check it!

Incidentally, if you find you have u.s.b. with the switch at l.s.b., and vice-versa, don't fret, just swap wires A and B on the audio output, although you'll probably have to readjust the thing if you do this. Of course the easy way is to label the switch after you find out!

Now all you have to do is add a few amplifiers and mixers, and if anybody is interested we can tell you how to do these things the easy way in another article.

Low Drift Crystals FOR AMATEUR BANDS

ACCURACY 0.02% OF STATED FREQUENCY

3.5 Mc. and 7 Mc.

Unmounted £2 10 0
Mounted £3 0 0

12.5 and 14 Mc. Fundamental Crystals, "Low Drift," Mounted only, £5.

THESE PRICES DO NOT INCLUDE SALES TAX.

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W.I.A. D.X.C.C.

Listed below are the highest twelve members in each section. New members and those whose totals have been amended will also be shown.

PHONE

Call	Cer. Cnt- No. ries	Call	Cer. Cnt- No. ries
VK6RU	2 247	VK6KW	4 202
VK6MK	43 243	VK4HR	12 192
VK5AB	45 243	VK3BZ	3 176
VK4FJ	21 219	VK4RW	23 164
VK3WL	14 211	VK3EE	10 163
VK3ATN	26 204	VK9DB	31 161

New Members:

VK3GB	50 171	VK2AOU	49 100
VK4DO	20 152	VK2AHH	41 135

Amendments:

C.W.

Call	Cer. Cnt- No. ries	Call	Cer. Cnt- No. ries
VK3KB	10 283	VK4HR	8 218
VK3CX	26 270	VK3XU	48 213
VK4FJ	29 252	VK6RU	18 209
VK3NC	19 236	VK3RU	39 203
VK3FH	15 226	VK3RX	23 185
VK3BZ	6 222	VK2EO	2 191

Amendments:

VK4DO	20 194	VK2AHH	62 130
VK4SD	52 156	VK6KW	40 116

OPEN

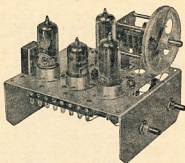
Call	Cer. Cnt- No. ries	Call	Cer. Cnt- No. ries
VK2ACX	6 282	VK3BZ	4 231
VK4FJ	32 285	VK3HG	3 225
VK6RU	8 280	VK3WL	45 225
VK6MK	74 247	VK3XU	61 221
VK3NC	77 238	VK6KW	13 216
VK4HR	7 233	VK3JE	12 210

New Member:

VK3BZ	80 102
-------	--------

Amendments:

VK4DO	15 203	VK2AHH	73 173
-------	--------	--------	--------



SPECIAL—WHILE THEY LAST!

MODEL 4/103 V.F.O. UNIT EXCITER

FREQUENCY RANGE: 144-148 Mc.

R.F. Power Output: Sufficient to drive an 832 or 2E26.
Valve Line-Up: Two 6CL6 oscillator multipliers, one 12AT7 multiplier, and one 5763 driver.
 The unit incorporates two different oscillator multipliers, one variable for establishing communication, one crystal-controlled fixed frequency oscillator for working.

£8/-/- EACH (Valves Extra)

AIR-WOUND INDUCTANCES

No.	Diam.	Turns per Inch	Length	B. & W. Equiv.	Price
1-08	1/8"	8	3"	No. 3002	5/3
1-16	1/8"	16	3"	No. 3003	5/3
2-08	3/16"	8	3"	No. 3006	6/3
2-16	3/16"	16	3"	No. 3007	6/3
3-08	1/4"	8	3"	No. 3010	7/4
3-16	1/4"	16	3"	No. 3011	7/4
4-08	1/4"	8	3"	No. 3014	8/5
4-16	1/4"	16	3"	No. 3015	8/5
5-08	1/2"	8	3"	No. 3018	10/6
5-16	1/2"	16	3"	No. 3019	10/6

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- ★ Potted type compound filled (vacuum impregnated).
 - ★ Universal application.
 - ★ Primary impedance range: 2,000 to 18,000 ohms.
 - ★ Secondary impedance range: 200 to 21,000 ohms.
 - ★ Highest efficiency—lowest weight per watt.
 - ★ Easy to solder heavily silver-plated tags.
 - ★ Above or below chassis wiring.
 - ★ Capacity: 30 to 250 watts.

List No.	Audio Watts	Max. Sec. Current	Overall Size L. W. H.	Weight lb. oz.
UM1	30 60	120 mA.	3 1/2 x 3 1/2 x 3 1/2	5 8
UM2	60 120	200 mA.	5 1/2 x 4 1/2 x 5 1/2	11 8
UM3	120 240	250 mA.	5 1/2 x 5 1/2 x 5 1/2	14 8

Price: UM1 £7/9/9 inc. Sales Tax
 UM2 £10/13/3 " " "
 UM3 £12/2/6 " " "

PI-COUPLER FOR HIGHER POWER

Compact, handswitched, high power pi-coupler inductor for co-ax output. Rated for a max. 1,200v. d.c. at 300 mA. input. Higher voltages on c.w. and s.s.b. For max. efficiency the 10-metre coil is made of 1/4 in. silver-plated strip, 15 and 20-metre coils of 1/8 in. silver-plated wire, and the 40 and 80-metre coils of 12 B. & S. tinned-copper wire.

Input capacity 250 pF. max., output capacity 1,500 pF. max. A single pole five-position switch is provided which can be used for switching in parallel capacities when required.

Recommended input capacitor: Eddystone Type 817. Recommended output capacitor: Standard miniature 3-gang BC condenser which is suitable in this position up to 1 kw.

Price: £4/17/6 nett

"Willis" Med. Power Pi-Coupler, £3/19/6 inc. Sales Tax.

"Willis" Heavy Duty Pi-Coupler Choke, 25/- inc. S. Tax.

Q-MAX SCREW-TYPE CHASSIS CUTTERS

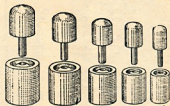
5/8"	26/7	1-3/8"	38/6
3/4"	26/7	1-1/2"	38/6
7/8"	29/4	1-3/4"	42/-
1"	34/10	2-3/32"	68/9
1-1/8"	34/10	2-1/2"	81/7
1-1/4"	34/10	1" Square	52/8
		1 1/16" Square	50/6

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3/8"	21/-	1-3/16"	35/-
1/2"	22/6	1-1/4"	42/6
5/8"	22/6	1-3/8"	47/6
1 1/16"	23/6	1-1/2"	47/6
3/4"	24/6	1-3/4"	57/6
1"	31/6	2"	62/6
1-1/8"	33/6		

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MU 2426

David Tanner, VK3ZAT

As you will have seen in Nov. "A.R.", I am your new V.H.f. Editor, so please start throwing things (news and ideas) at me.

Now for some news on the DX front. JAs have been rather scarce down in the south, but apparently the chaps in Brisbane and parts further north have been having their share during October. Some ionospheric disturbances in the early part of the month produced quite a high m.s.f. and some choice DX on KJ6 and JA for a couple of the VK2 boys. The sporadic E season appears to have started off well with a good opening in the eastern States on 6th November.

Of interest to those chasing VK8 for W.A.S. is the news that Kel VK3ZQF is preparing for a trip to Alice Springs during the Christmas and hopes to operate under the call VK8ZQF.

That's all from me for this month so get busy with those pens and let's have a bigger and brighter v.h.f. page.—3ZAT.

NEW SOUTH WALES

General.—The month of October saw an excellent lecture, a well attended field day and a popular night hidden tx hunt. Lecturer for the month was Alan VK3ZAT who delivered the subject: "The A.B.C. of Receiver Selectivity" more than adequately. Much to the surprise of some, he spent more time on front-end selectivity than the passive network in the i.f. channel, pointing out that more trouble is caused by high level adjacent channel interference than any other cause. His ultimate v.h.f. rx in the following list is a 1000 watt r.f. amp. (grounded grid); double tuned circuit to second r.f. amp. (low gain); double tuned circuit to the 1st mixer. This r.f. arrangement should have 70 db rejection to image or spurious signals. The crystal oscillator should operate at as high a frequency as possible and is followed by a double tuned circuit to attenuate the oscillator sidebands. A single tuned circuit is permissible between multiplier stages, but the injection frequency should pass through another double tuned circuit to attenuate harmonics and cause only the wanted frequency to be injected.

All this is far is usually the converter. This should be followed by the tunable i.f. using at least one and preferably two tuned circuits before the second mixer to attenuate adjacent channel signals. The second mixer is followed by a passive filter, possibly crystal, having a band pass of suitable width with almost parallel sides from 10 db down to better than 40 db down. The remainder of the circuit is i.c. coupled, as its only purpose is to contribute gain. Alan has inspired at least a few to correct faults in their existing rx set-ups.

The Spring Field Day, although overshadowed by two Hamfests, saw a large number of stations taking part. Two messages were originated, one travelling over 800 miles, the other over 1300 miles. This 1st mx band F.D. has proved popular over the years and it gives an opportunity for city stations to make contact with country stations who are often only a few hours away, but are unable to exist as a signal in their own spot on the band. Best DX for the day was ZVIL Mt. Gibraltar to ZKZF Murrumbidgee—approx. 200 miles. Conditions during the day were poor and the weather was damp in many locations. Another F.D. with the same purpose of linking city and country stations is programmed for New Year's Day. Further details in next month's notes.

The night hunt, with 20A hiding, near Warwick, was a real success. ZVIL was the shortest distance. There were two: 2AWZ and 2RX. There were twelve starters with a total of 16 call signs abroad.

50 Mc. A badly operating JA and KJ6 on Sat. 8th, saw ZCZF and ZVIL active and making many contacts. That week-end was during a period of magnetic storms and hot weather. The second night had similar conditions. No other activity has been reported.

144 Mc. Further new stations have been heard—2AYH, ZCGR, ZEFJ, 2ALY. The band is becoming more active. One station appeared at Newcastle, ZEFJ using a 552. Activity is spread out, with about 20 stations active on Sunday nights. Mobile operating is high priority, with more than 15 stations heard regularly.

The frequency checks on Sunday evening, as given by 2RR have come to a temporary end, at 146 Mc. Phil has now covered every 100 Kc. to 146, and also 147 and 148 Mc. He is still available to give individual spots and frequency checks. Our thanks to Phil for this valuable service.

576 Mc. Things are quiet on this band at present. The midwinter efforts have waned as the DX season on 50 Mc. starts. Here's hoping that this band doesn't die.—3ZAG.

VICTORIA

50 Mc. A minor opening in the late afternoon of Oct. 29 gave some of their first taste of sporadic E propagation. 4ZRV logged in a number of shacks in Melbourne and also at Numurkah and 3VL. Rex also heard 3CL, 3ALZ and 3AZY. Activity about the band included 3AN 3ZS and 3ZLV. 3ZLV ported from Kingsland, Jan 3ZBP—now 3ATY (Australia's Talkative Yoke!), congrats Ian. Eric 3ACL still has his 50 Mc. gear and whilst he listens a bit he rarely transmits. Stan 3ASB has returned to the band after several months absence. Jock 3ZDG is determined to work DX this season; his 7 el. V.H.f. is now ready for use. 3ZRV is active again and so is Fred 3YS. A new call on the band is Kevin 3ZKJ; welcome OM. George 3ZCG is experimenting with a tunnel diode mixer. 3ZRV is still active. David 3ZAT has a 6146 linear stocked up in his mobile s.a.b. rig, so watch out for a potent signal.

144 Mc. 3ZCG gives the following as active stations in the Eastern Zone: 3ZAG Warragul, 3ZDP and 3ASW (ex-3ZBR) Sale, 3DY Maffra, 3ZB Traralgon, 3ZRV Morwell and 3ZJM Newborough, whilst a station in Bairnsdale is expected shortly.

Ron 3ZRR Ballarat has changed frequency to 14.35, please note. Brian 3ZDW/3 Ballarat caused some interest in the band but was inactive in late October. He says he will be active on 50 Mc. from VK8 early in the New Year. Max 3ZCV hopes to be back on the air from a new QTH—144.

Conditions were good on the 21st, 22nd and 23rd Oct., when 3ANQ Warrnambool worked into Gippsland to 3ZCG, 3ZJM and 3ZLV (distances of order 185 miles). 3ZRV Ballarat worked 3ZDP at Sale (180 miles). M.S. is on the upgrade apparently, so all operators should keep a look out for that weak "rare and elusive" signal.

Alan 3ZHN has indicated that he will be portable at Torquay over the holiday period and would welcome any 144 Mc. contacts from there. Old calls that have resappeared lately include BR 3GS and David 3ZAY and Michael 3ZCG.

Transposing for a moment on Barry 3ZAG's ground, I will make mention of the fact that 2WH, 2APP and 2ZGM have been lately heard making crossband 2.8 MHz to 144 Mc. These three stations are in southern VIC and are definite possibilities for the VK3 gang. Noel 20U/3ANS at Denitquin is stoking up on 144—low power at first, then something bigger later. He should be a fairly easy contact for Melbourne operators. (160 miles). So fellows, don't forget to turn your beams north in the coming months, you may well pick up VK2.

88 Mc. Bill 3BU/T at Geelong has been receiving audio from Geoff 3AUX/T in Melbourne, but to date has been unsuccessful with Geoff's soft voice. Geoff is at Koorowoor North is local, but for contacts on the 88 Mc. band find no takers. Perhaps the Ross Hull will spare some time activity.

576 Mc. 3ZHF/3ZJN have been active on this band for some time. 3ZJN is super-equipmented and have worked into Melbourne from the Pentland Hills area (about 40 miles). Jim and Neil have also worked 3ZIR in Brighton. No reports have been received of any activity with stabilised equipment in VK3. Is there any?

Fox Hunt: The October hunt was most disappointing to the organisers, 3ZJN, 3ZHF and Alan BRD (having no results) and 3ZRV and 3ZLV. A flood of turns was made and the night was a flop. Neil, Jim and Ron have decided they will not be fox, or should it be bunny next time. The answer is up to them: "there be any more hunts?" The answer is up to the hounds.

V.H.f. Group Meeting: 14 members attended the 4th group meeting and visitors were 3ZRV, 3ZGE, Barry 3ZAG, Horst Martin and Colin Baldock. The advertised lecture by Mr. Craig of the M.I.L.G. was not held because of his absence from the area. The group meeting covers soon and will be able to give his lecture at some future date. Jock 3ZDG filled the gap with a lecture on gas tubes ranging from vacuum tubes to ignitions. Much discussion on v.h.f. affairs took place with 3ZAG and 3ZGE and the greetings from VK2 were reciprocated. The meeting decided to meet again on 11th Dec., 29th Jan., 12th Mar., and

23rd Apr. Those going portable are advised to publicise their plans so as to avoid having to share mountains.

These are the last notes for 1960. I hope the past year has been a good one for you and I wish you all the best for the coming 1961. 73, 3QV.

QUEENSLAND

50 Mc. Early October was very patchy on 50 Mc. Locals on include 4ZDS running 35w, to a 4 el. JAY. 4ZBS has the beam 43 ft. high now and is thinking of 604K4 tubes! 4ZNS has a new one on about 50w, also JA 4WJ is still thinking of joining the 50 Mc. gang from Brisbane. Reasonable activity on 8th Oct. with JAs at 1300 odd, 59 here. Also at 4DK, 4ZBS, 4ZJH and 4ZLV. VK5 was apparently favoured though. I worked five JAs (7, 8 and 9), quite good signals. The band was still open to JA1 at 1750. I believe VK3 worked into Brisbane on the morning of 9th and I'm also told KH6 appeared. Who worked them? I only had JA2 at 1225 and he faded out after we swapped reports, but we had heard, video at 89 then. Some time scatter stuff appeared at 1405. 4ZDS collected 16 JA's!

15th, JA7, 8 worked at 58 1440-1515 hours. 18th, JA7, 8 and 9 worked at 4230-4250. Bob 4NG reported that he had Japs nearly every day for the preceding week. I believe he has passed the 1,000 JAs worked mark. Col. Bob 4ZLV worked into Rockly. Had words with Bill 4WD and Mick 4ZAA on 21st. Both are making a comeback to 6 mx or may-it's me who making the comeback! 4ZBT mobile on 6mx, low input, 400 HPV and Len 4ZBS had DX tonight, worked 4ZGL, 4ZAA, 4ZBF in Brisbane (about 65 miles). 4ZJH and 4ZLV worked into 4ZRV on 21st, 27th, JA8 on 7 Mc. 28th night reasonable, worked 1,040th JA. 29th, went fishing, caught 4220 and missed the VK5 opening, but got Col 5RO and 5ZBJ.

General.—New call signs to my notice: 5ZBQ, 4ZCN, 4ZDJ (SI carrier here), 4ZCS, 4ZCF, 4ZJH, 4NG, 4ZLV, 4ZRV, 4ZRV, 4ZRV, 4ZRV and work some DX! There's a few outside Brisbane you know.—4ZBL.

SOUTH AUSTRALIA

50 Mc. Signals from Japan have been frequently heard over the last month with contacts made on several occasions. On 8th October, 4ZLV worked into 4ZRV, 4ZRV, 4ZRV and numerous contacts were made. Mick 5DR scored at least 13 and was quite pleased with the results. Of particular interest was KAF3W who was on 50 Mc. 4ZRV worked into 4ZRV by Ron 5MK and your scribe. Ron thinks it quite possible that the JA was the first time that station contacted the SA area. 4ZRV worked into VK3 on 50 Mc. VKs 5ZCR, 5ZBL, 5GG and others were also getting their share of contacts.

Most of the other openings during the month were very scratchy and very little was worked. One such opening occurred on 1st Oct. when Col 5RO worked into JA5 at approx. 1315 hours S.A.T.

On the 15th, the f.m. station on 48.6 broke through at 1313 hours S.A.T., but no JA's were heard or worked. At practically exactly the same time the next day, the station was again audible and JA's were very briefly heard, but none worked. All the above openings occurred at weekends and it is known that on several wet days, such as the one the band showed promise of JA contacts but none were actually made.

On the afternoon of the 29th signals from VK3 were heard and active at 3pm hours, morning and several contacts were made. Later in the evening at 2200 hours S.A.T., the Korean f.m. station was audible and a carrier on 50.2, but again no JA's were worked.

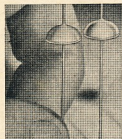
Rick 5ZQF now has the covered piece of paper and has been active on 50 Mc. with a very few results and a high location. On 10th, 8 Rick, Eugene 5AV recently returned from VK3 and reports having had many QSOs with the VK3 boys from his 6 mx mobile. Brian 5ZLV has been active on 50 Mc. and is working the Anal. Mobile activity is definitely on the increase now with many new stations on. Gilbert 5GX, John 5ZCJ and Stuart 5ZDG are also working hard to add to the list. 5JH has been out portable very frequently, operating on one occasion from South Australia and working back to Adelaide with ease. 1000 JAs and two mx activity is still confined mainly to crossband work by Mick 5ZDR and Gary 5ZFM, but as tropospheric openings on 2 may become more frequent towards the summer months, it is hoped that the likes of Gambler, Ballarat and Melbourne from Mt. Barker.

On 10th in Adelaide recently lost one of their most active v.h.f. enthusiasts when Al 5ZCR (Continued on Page 13)



The WARBURTON FRANKI Page

THE WORLD'S FINEST DIODES BY THE RENOWNED INTERNATIONAL RECTIFIER CORP. U.S.A.



'INTERNATIONAL' ENCAPSULATED SILICON DIODES

200 to 500 mA. rated; 400 P.I.V.

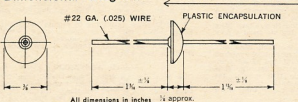
Designed specifically for Television and Commercial Equipment Applications.

These silicon junction diodes are especially recommended for television and other commercial equipment applications where low cost, miniaturisation and high temperature operation are required. They will provide full-rated power under normal convection cooling, with no external heat sink required.

Typical Ratings and Characteristics

DIODE TYPES	2E4		5E4	
	Cap. Load	Res. Load	Cap. Load	Res. Load
Peak Inverse Voltage, Volts	400	400	400	400
Maximum RMS Input Voltage, Volts	140	280	140	280
Max. Rectified DC Output Current, ma (at 70°C ambient temp.)	200	300	350	500
Max. Surge Current (1/2 second), amps.	2	2	5	5
Max. DC Reverse Current @ 100°C Full cycle average over 10 seconds, ma	0.5	0.5	0.5	0.5
Max. DC Voltage Drop at 500 ma, Volts at 200 ma, Volts	—	—	1.3	1.3
Minimum Surge Resistor, Ohms	10	—	4.7	—
Recommended Surge Resistor, Ohms	22	—	7.5	—

Dimensional Diagram



WRITE FOR BULLETIN SR208-A

INTERNATIONAL 6 & 12 AMP. STUD MOUNTED SILICON DIODES

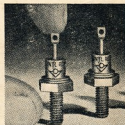
Absolute Maximum Ratings (at 60 cps. Resistive or Inductive Load)

DIODE STYLES AND TYPES	6F SERIES								12F SERIES							
	6F5	6F10	6F15	6F20	6F25	6F30	6F35	6F40	12F5	12F10	12F15	12F20	12F25	12F30	12F35	12F40
Peak Reverse Voltage, Volts	50	100	150	200	300	400	500	500	50	100	150	200	300	400	500	500
RMS Input Voltage, Volts	35	70	105	140	210	280	350	350	35	70	105	140	210	280	350	350
Continuous DC Voltage, Volts	50	100	150	200	300	400	500	500	50	100	150	200	300	400	500	500
Rectified DC Output Current, Ma.	(See Figs. 1 to 3)								(See Figs. 4 to 6)							
Peak Surge Current (1 Cycle), Amp.	50	50	50	50	50	50	50	50	65	65	65	65	65	65	65	65
Operating Temperature Range	-20°C to 125°C Junction Temp.								-20°C to 125°C Junction Temp.							
Storage Temperature Range	-20°C to 150°C Ambient Temp.								-20°C to 150°C Ambient Temp.							
Thermal Resistance (Base to Junction)°C/watt	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

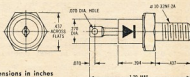
Electrical Characteristics

Forward Voltage Drop, Full Cycle Average @ 100°C Base Temperature	Typical	0.5 Volts at 6 Amperes								0.5 Volts at 12 Amperes							
Max. Leakage Current, Ma. (Full Cycle Average at 100°C Base Temperature at Rated Voltage)	Maximum	0.05 Volts at 6 Amperes								0.05 Volts at 12 Amperes							
		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

WRITE FOR
BULLETIN
SR-308-A



Dimensional Diagram



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TRADE NOTICE

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FEEDBACK

COMMENT was made last month regarding the promised I.T.U. Conference report, but this criticism omitted certain facts.

The I.T.U. report has not been published because it is not complete. Until the Frequency Review Committee reach a finding and Parliament have ratified the Geneva findings (and those of the Frequency Review Committee), the final decision regarding Amateur frequency allocations will not be known. This final decision will be reached in mid 1961, and after that date the I.T.U. Conference report, plus the decision of the Australian Government, will be combined and published. The publication of the report was never intended to influence any Body, but was to serve as a historical reference for the coming generation of Amateurs. The full background details to the last I.T.U. Conference were not available to our last delegate and this rendered his task more difficult. So Federal Executive have decided that by publishing a complete summary of the Conference and the final ratification by Parliament it will provide a valuable reference to be used by our Delegate who attends the next I.T.U. Conference. You will receive a copy of this report as soon as it is possible to publish the complete story. At this juncture this is not possible, thus the delay in issuing the promised report.

★

If you operate barefoot, then put on your shoes, you are likely to get a hot foot. All very strange to me.

★

English is a versatile language, but it is complicated when the same word has two meanings. Heard two galahs talking about cooking galahs.

★

Noticed that the previous editor of "CQ" (W2NSD) is now publishing a new magazine called "73". Well, never say die.

★

Having written this column the last few months, it is fitting that thanks be given to those who have so kindly sent me bits of gossip from which the brief outlines have been given. At times to hide the identity of those concerned, it has been necessary to be rather vague, but it is impossible to print the full story, to do so would embarrass all concerned. Thus each story must be very brief and not identify the real persons. Though one person did write saying he was not the person referred to in an article, apparently had a slightly guilty conscience.

★

Have been trying to find out what a VK8?

★

A Merry Xmas to all readers, and a sincere hope that the coming year of '61 brings fun and health to you and yours.

73, CASEY.

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CORRESPONDENCE

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

PLEASE ASSIST QSL BUREAU

Editor "A.R." Dear Sir,
The "outward" QSL officer for VK3 (Ivor Stafford, VK3XB) has drawn my attention to the following matter relating to "outward" QSL cards—a matter which has caused me concern too. We find that far too many stations, when preparing cards for despatch, are loathe to forget four cardinal rules necessary for quick and efficient handling by us. Therefore we ask (through the courtesy of your columns) that all VK Amateurs, when despatching cards, ensure—

- (a) That the call sign of the addressee be clearly printed on the back of the card (top left hand corner).
 - (b) All cards be "faced" alike.
 - (c) Cards be sorted into countries groups by the sender.
 - (d) ALL cards be sorted either right way up or upside down—but half and half!
- Observance of these four simple rules may make our task lighter and brighter.

Thanking all for assistance and co-operation.

—Eric Treblecock (BE8H190),
Acting General QSL Manager.

PER CAPITA PAYMENTS

Editor "A.R." Dear Sir,
In September "Amateur Radio" appears Federal Executive's 1960 income and expenditure account, and on the "income" side is the following entry: "Per Capita Payments, £3/6/2." Since the Divisions contributed 2/- per member towards Federal Executive running expenses, this suggests that at the relevant date, the W.I.A. had throughout Australia 96 and one-twelfth members!

These contributions are based on membership as at the end of each year. Those based on 28th February, 1959, were treated as income of the past year. Then the method of accounting was changed, and those based on 28th February, 1960, will be treated as income of the year just starting.

This, the change-over year, had no income, but a deficit of £2/10/0, which was £8/6/2 found their way into Per Capita Account.

—Bob Boase, VK3NL,
W.I.A. Federal Treasurer.

S.W.R. MEASUREMENTS

Editor "A.R." Dear Sir,
With reference to the article on S.W.R. Measurements with a TA-33 Triband Antenna in October issue, I would like to correct an error appearing therein.

Due to my Amateur technical background, I used a V.S.W.R. formula to resolve the S.W.R. where power and not voltage were measured. The term S.W.R. is apparently accepted to refer to either voltage or current when power is not specifically mentioned.

When both forward and reflected power are known, the S.W.R. is determined from:—

$$\text{S.W.R.} = \frac{\sqrt{\text{Forward Power}}}{\sqrt{\text{Reflected Power}}} \text{ plus } 1$$

$$\text{S.W.R.} = \frac{\sqrt{\text{Forward Power}}}{\sqrt{\text{Reflected Power}}} \text{ minus } 1$$

When power is not specifically stated, the formula and graph appearing in the Oct. issue of "A.R." are correct.

Those of our writers who are academically minded can correct for transmission line attenuation, etc.

—C. I. Patterson.

MORSE CODE

Editor "A.R." Dear Sir,
I feel compelled to comment on certain remarks made by Mr. Jones, VK3BGO, with regard to band allocation and c.w. communication.

It would appear that if Mr. Jones and some of his fraternity have the way we can expect to not only have a reduction in frequency allocations, but in types of emission. I do not take this remark too seriously as it is obvious that his views do not represent those of the majority of non-c.w. Amateurs. It is an accepted fact, and not my own view, that c.w. is still the most efficient and expedient method of conveying information from one radio station to another. Surely he would not suggest that automatic Morse at 160 w.p.m. was outdated or inefficient.

The present overcrowded situation in the Amateur bands can easily be resolved. There

is no interference problem in the c.w. portion of our bands, this is due to a number of reasons. Lack of c.w. activity, use of a narrow bandwidth, and the fact that in general a higher degree of interference can be tolerated, without sacrificing efficiency. The same in general terms can be said of single sideband, there is a high degree of intelligibility and a very narrow bandwidth. The present overcrowding in the phone allocation must surely re-affirm that conventional amplitude modulation occupies too much bandwidth and is inefficient and out-dated as a means of communication.

While being willing to concede that certain c.w. allocations are more than adequate, I feel I must refute any idea that c.w. is an outdated and unwanted method of emission which most Amateurs are ready to give away. I am fully equipped for phone operation, but spend 90% of my operating time operating c.w., and certainly enjoy it just as much as when first licensed in 1932, and I am certain my views are shared by many. To a logical mind, the inevitable result of a change-over from conventional amplitude modulation to s.s.b. would be to persuade every other phone operator to do the same, rather than the gradual extinction of the c.w. fraternity who are in no way involved in the scramble for space.

I am convinced that the re-introduction of a compulsory c.w. probationary period, and perhaps the introduction of code proficiency certificates, could go a long way to solving the present overcrowding in our bands, and would certainly improve the operating c.w. considerably. Surely this is preferable to the blatant removal of a vital community service.

—Cyril Rylatt, VK5TC.

Editor "A.R." Dear Sir,
This letter is one that my many friends, who use the telephony system of communication, will expect me to write. I am noted for my ability to always rise to an occasion, bite well, and swallow, how line one sinks. Let me be no exception—rather let it be one of my best "bites," one noted because I too (like Roth Jones, VK3BGO) have my tongue in my cheek for part of the time.

In the VK3 Division I have, so I would be led to believe, an unenviable, nay, despised job. I call it "the official c.w. power and jangled nerve placator's" position. Most others call it various names meaning morse code instructor.

During five years as such I have met men (and one woman) from all classes of society; a typical cross section of the Ham fraternity. With the exception of a few people who approached Morse instruction with a hatred so deep-rooted that even they could not gauge its depth. At the first lesson they glare at that old "squawk box" and grit their teeth, even before they hear its melody. As the exam approaches, nine months later, one or two in each class will have the same murder in their hearts—mentally dreaming of a box gently divided asunder with the business end of an instrument used for ceiling fans.

The result—they fail the exam, whilst their comrades-at-arms sail through with flying colors, after having learnt to appreciate the melody, the rhythm and the sheer artistry obtainable through this medium. Untrained, our stalwarts keep trying, until eventually the examiner gets absolutely sick of the haggard faces and obvious shattered nerves, and passes the poor fellows out of pity.

These tryers have my complete sympathy. If there was some way that I could have put them out of their misery (legally), then I would have done so, and so saved them months of heartbreak and thousands of grey hairs. But there is no way. They will never, never, never give up, and they will relate and enjoy the Morse. That would be suicide.

From Mr. Roth Jones' remarks in "Amateur Radio," October 1960, it is very obvious that the c.w. fraternity are being unfairly painted above. He has himself to blame—ask any psychologist.

Sir, could I tell you of a better way, that others may heed? One of the exceptions that I have mentioned, was a gentleman with an approach that was simple and very obvious when you think about it. I could almost sense him saying to himself, "Here is something new and different that I cannot do. I must learn all about this and see what it entails. This could prove to be interesting and even entertaining."

Because of his approach, that is exactly what it proved to be for him. So much so, that he passed his exam, three months ahead of schedule. For me, it was a pleasure to instruct such a one, because his approach made it easy for me to do.

Could I point out to all prospective Hams that this is the only sensible way to approach the language of Morse Code.

(Continued on Page 18)

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CORRESPONDENCE

(Continued from Page 17)

With these remarks, I dismiss Mr. Roth Jones' crackpot abolition and re-allocation remarks, and look down the band for a good chat with one of my DX c.w. friends.

—Bruce H. Bussenschutt, VK5OR.
P.S.—Please do not get the idea that I am as one-eyed as Mr. Jones, but in the opposite direction. I have made extensive use of phone also, and will continue to do so.—B.H.B.

Editor "A.R." Dear Sir,

I write in reply to the letter of VK3BG in the October "A.R." I am one of the "strange chaps" who works c.w. exclusively, and I am not an old-timer as my call might tend to indicate. I do not "sacrifice all for that one country"—I work anybody anywhere.

One reason that I won't be going on phone is because I don't like a lot of the tripe that I hear, most of it bearing no relation to experimental activities!

Following 3BG's toast "to the abolition of c.w. and the ridding of our ranks, etc. . . ." I would like to add another—Here's to the ridding of our ranks of the narrow minded who see their own hobby-horse as the only one worth riding.

—J. C. Redman, VK2JE.

Editor "A.R." Dear Sir,

In reply to Roth Jones' (VK3BG) proposed new band frequency allocations for c.w., s.s.b. and a.m., I would agree that eventually c.w. may be superseded as the first means of DX communication, but it is not so yet; so the requirement of Morse Code in the A.O.C.P. is obvious. A good key man reads without undue strain several c.w. stations within 2 or 3 Kc.

To ask the a.m. VK boys to work their phones in the International c.w. section of 14 Mc. will not be received with enthusiasm while the s.s.b. boys have the quieter pastures to themselves.

Neither will the c.w. chaps warm to the inference that we are alien or pestiferous. The c.w. man differs not one whit from the phone man in his search for new countries as the DXCC listings would prove.

—Alan Shaws Smith, VK4AS.

Editor "A.R." Dear Sir,

I am amazed to read the letter of Roth Jones in the October issue advocating the abolition

of c.w. from the A.O.C.P. exam, and also from 14 Mc. entirely.

If Roth had been a poor c.w. operator I could perhaps understand his attitude, but as he is far from being that, I can only come to the conclusion that he is so enthralled with his new toy s.s.b., that he has overlooked the fact that the Amateur is balanced and tolerant of other Amateurs' modes of communication.

When he so graciously offers c.w. the whole 40 Kc. of 14 Mc. and allots the rest of the band to the two phone modes, for the time being, and later on suggests that if it is the wish of the majority (presumably the s.s.b. and phones) the c.w. should be removed from the entire band, he reminds me of a certain gentleman in Europe some 21 years ago.

It is not every c.w. man who chases after the elusive and often non-existent country to the exclusion of his social duties. In this part of the world if I can work VK3 that is DX for me. Occasionally the Yank is to be heard, but not very often, and 14 Mc. is used as a general band for domestic QSO. The nearest Ham that can be worked is in Brisbane, and then only some times.

If more frequencies are required for s.s.b. what is wrong with the open spaces on 3.5 Mc.? I suppose the answer to that would be general noise. It may interest Roth to know that here there is a high noise level all the year round on all bands from the broadcast down.

In case you should think that I am sore because I work c.w. only, I must say that for some years prior to 1934 I was operating both phone and c.w. Latterly I have been on c.w. exclusively.

I would be interested to hear some other c.w. man on this subject, as everyone is entitled to his opinion in this country.

—Edmond Waddle, VK4GZ.

Editor "A.R." Dear Sir,

It is very pathetic when an Amateur as well known as Roth Jones has to launch an unwarranted attack on a certain section of our members. Let me take his letter point by point. There can be no doubt that s.s.b. is here to stay, and it is very heartening to see the section being catered for in our magazine.

As a listener, I have spent considerable time listening to this mode of communication, and can find no criticism, other than a feeling of

frustration when, after an hour of operation, stations don't give their call.

Your condemnation of c.w. communication, Mr. Jones, is utter rot, and not worthy of a gentleman of your standing. We are all entitled to our own hobbies, I prefer to remain an s.w.l., others prefer v.h.f., s.s.b., a.m. or c.w. They are entitled to a segment of the band, and regardless of your personal feelings on the subject, they shall have it. C.w. may be outmoded in certain fields, but it will always be used in others. Why does a nation the size of the U.S.S.R. encourage its club stations in the use of Morse? I would suggest from observation that there are more Iron Curtain stations using this mode of communication than in any other country.

Several other points can be made in favour of c.w. Firstly, it is the easiest and cheapest way to get on the air. There can be no argument about that. Its advantages in heavy going are so well known that I need not enumerate them here, suffice to say that even when things are too tough for the s.s.b. boys, the c.w. men can be heard going strongly. And don't forget the chap who has an impediment of the speech. Yes, Mr. Jones, c.w. must remain, regardless. And please don't forget that the s.s.b. stations who are crowding the top of the band are, in most cases, former a.m. operators who have seen the light. Since these chaps have forsaken their former mode of operation, why should we c.w. chaps have to suffer a cut or complete abolition of our segment to cater for them?

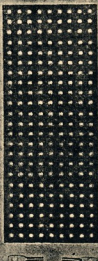
Finally, Mr. Jones, there was a time when you were a renowned c.w. operator; do you mean to tell me that you even now can find no thrill in copying such c.w. "greats" as DL1EZ, KV4AA and so on? Their perfect sending and their flashing speed never fails to make me listen and marvel at just what can be achieved by this mode of operation. As for the reason the Morse exam is held in the A.O.C.P. test, this is a curly one of course, but its inclusion certainly keeps the bands, particularly 40, occupied on a safer level than sending and their flashing speed never fails to make me listen and marvel at just what can be achieved by this mode of operation. As for the reason the Morse exam is held in the A.O.C.P. test, this is a curly one of course, but its inclusion certainly keeps the bands, particularly 40, occupied on a safer level than sending and their flashing speed never fails to make me listen and marvel at just what can be achieved by this mode of operation.

[More letters on the same subject have been received and will be published next issue.—Ed.]

—Don Grantley, W1A-13088

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Maurice Cox, W1A-L3055
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So another year ends for we, the s.w.l.'s. To me it has been a very successful year in many ways, and I think of the summer months as I had, I hope you have had the same amount of good fortune in the way you would want it. May it continue in the coming year.

To the following I say thank you for the help you have all given me this year. The Amateurs here in Victoria, the VK S.W.I. Group Secretaries, the office-bearers of the VK3 Group and to all the s.w.l.'s who have written me.

Regarding the S.W.I. Convention at Shepparton, it has been decided to hold it on 4th and 5th February, 1961. An interesting week-end has been arranged. Eric Trebilcock will give us a few words on one of his pet subjects some time on the Saturday. On Sunday, a visit to Radio Australia will be made.

I have been informed that we will have three of the VK3 boys there with us. I wonder if any of the other VK States will come. We of the VK3 Group would like to see s.w.l.'s from all States.

I wish to acknowledge correspondence from Eric Trebilcock, Don Granley, Alan Thompson, Dave Jenkins, Barry Thomson from New Zealand, Alan Holmes, Eric Hutchins, Gerry Albeck, Michael Jenner, Peter Hutchison and Mac Hillard—thank you very much chaps.

A new member in the VK3 Group, and on behalf of the s.w.l. office-bearers, I welcome Leigh Banks, W1A-L3066.

VK NEWS

VK3: Last Friday night, VK3ZDGG gave us a very interesting talk on v.h.f. propagation and believe me it was one of the most interesting talks I have ever heard. Now the boys and I know something of F and E layers, etc. Many, many thanks, Jack.

The VK3 State Council has passed our proposed two s.w.l. awards and they are going to submit it to the Federal Council for the Awards to be made Australian wide.

Mac has sold his 888. Ron Young is building a new 100 watt 1000 cycle oscillator. We will have the works soon. Yours truly received confirmation of that illustrious State—North Dakota. I also had some rectification trouble in the 100 watt a dry soldered joint in one of my antennas.

Haven't seen Michael Ide or Peter Nelson late, or Chris Walker, that matter. Where are you chaps? Addison Lowndes wonder what he's been up to? Also Craig Cook, how's that old rx going Craig? Angelo Harris was amongst us on Friday night—his one of the blind s.w.l.'s. We haven't seen him for a couple of years. Welcome back Angelo, it was nice to hear your band reports again.

VK3: Gerry Albeck has been sick for a while; hope all is well with you now Gerry. He tells me that the commercial side of the VK3 Group is big and all the news about commercial short wave is done with the understanding of the Group and the W.I.A. He was told that a s.w.l. in listening to stations which broadcast, whether be amateur or commercial, is all the same to him. You s.w.l. you are against Gerry, but it's easy to log a commercial station, but it's not so easy to hear or log an amateur working with low power. That's what makes Amateur Radio listening so interesting. All is well down here Gerry, the Group is doing fine and by all means drop in at Christmas time if you are down. Be sure to attend one of our meetings. Thanks for the DX Ladder scores and fine on being a monitor for the 2000 of Germany.

VK3: The Group in the Mount hasn't had a meeting for about two months owing to five members studying hard for their intermediate exams. The 2000 of Germany. That's what regular meetings will be held after the exams finish. The interest in s.w.l.ing in Adelaide is high and already Fred Aslin has had five requests from W.I.A. members in the big smoke. And Fred is also busy with letters from other intending s.w.l.'s.

This time of year, on VK3SWI, they mentioned the Group in the Mount and for all intending listeners to write to Fred Aslin for a list of numbers. If enough interest is raised, the Group in Adelaide will re-open in the near

future. Now see here, you VK3 listeners, I am ex-VK3 born, bred and raised in Woodville—now you wouldn't want me to say in this page that there was no Group in Adelaide would you? So don't let me down, re-open the Group and if you want any help in getting it going write to me.

Colin says his antenna at the present time is only 18 ft. high due to a storm they used about a month or so back. He used the W6 All-Band Wyndham and was very pleased with its results. Colin makes mention that he received a QSL card from HKTAB and he wrote the card out the way I do mine. He quotes: "Looks like it gets results." Of course it does Colin!

VK7: They are back with us once more, the lads from the Apple Isle and of lovely women! My XYLs, I know. Michael reports they had a general discussion night last meeting (I wonder what was discussed—he didn't tell me). But according to VK7W1 broadcast last Sunday morning, something is going to happen. Michael heard VK7ZZZ on 40 mx phone on Monday night with a new moderator, running 25w, better signals than the 100 watters.

Ted Beas is flat out on 1 mx, busy building modulators and power supplies for d.c., when he gets his Morse. How's that tranny I sent you, Ted? Don't forget you owe me a QSL for your apologies will be accepted, hi! Michael took his rx to Hobart and set up a base station for the Scout Jamboree. Hope it was a success. See you next month.

Some members of the VK3 S.W.I. Group at Rye during the R.D. Contest week-end. Left to right: Dave Fraser, L3077; Maurice Cox, L3065; Ron Young, L3076; J. Donald; Ian Woodman, L3066; Clarrice Walker; Mac Hillard, L3074.

OVERSEAS NOTES

Don Granley

Malaga: Several very interesting letters this month, firstly, Rod de Balfour comes to light with a resume of the R.D. and his QSL scores. From accounts it would seem that he has a good four-figure score. Short skip was very much in evidence during the Contest and this enabled Rod to log many VKs on the higher frequencies. His recently acquired Golsco front-end is doing the job very nicely for him. Jack White, ZL3GX, wishes to thank all and sundry who participated in the Memorial Contest and looks forward to receiving your VK/ZL logs in due course.

VK/ZL Contest: From this neck of the woods it would seem that the DX Contest is rapidly passing into obscurity. There were very few VK calls on the air at all and although the ZLs dominated, the interest was at an all-time low. Due to pressure of work, L3068 operated only for a few hours at each week-end, scoring only about 5,000 points. No other scores to hand at all.

Visitors at this QTH (Albury) in the past few weeks have included Eric BERS-195 and Mac Hillard, both of whom were able to stay for only a very limited time. Hope to see you all up here before the year is out, Mr. Cox and company.

DX: The bands have been performing well of late here, several good countries were logged during the 2000 of URS. Di W F were all heard on 40; the 15 ft. 20 ft. to be found on the DX page whilst 15 and 10 brought their good old state in making it self unpleasant on 80 and whilst there is a load of DX to be found for the patient listener on 40, the commercials make copy very hard. Personally, I have peaked my ART on the phone sections of the various bands and there it stays.

VK3 should be on from Pitcairn using s.s.b. etc. This ACNCC is heard here operating c.w.

in the phone band. Note Jack ZL3GX was first to win the 300 PH/CW rat race. 7GIA is OK, definitely not a pirate. QSL via OKFID. Note that the R.S.G.B. (Telephony) Contest will be held on Dec. 3 and 4; 15 and 10 mx phone only. I am sure that some of our phone listeners could do well in this event, as it is considered in the usual practice of the English manner. Operating is of a far higher standard than that of any other Contest I have been in, and could be a real challenge to have a far better than he has in some other events. I feel sure that Eric would supply any further particulars.

Whilst at this QTH the change over from h.f. to v.h.f. is under way, hope to be active for the Ross Hull, and if anybody can ever kick me into a week-end contest again, they will be flat out doing so!

CORRESPONDENCE

Eric Trebilcock:—The QSL job keeps him very busy, likewise the gardening and motorings plus 70 hours a day. Do you know what, he's been at it again listening on 20 mx. It's amazing, I just can't understand him, dropping his beloved c.w. for phone. Ah, well, it's all in the game.

Eric Hutchins:—He has acquired an Eddy-stone 680 rx and is tickled pink with its performance. He is still plugging away at his 888, but he has a new 1000 cycle oscillator which makes it tick and whistle. His antennas are a 40 mx dipole and a 50 ft. verticle for use with the 1000 cycle signal. He also finds the VK3 slow Morse sessions very good.

Alan Holmes has been issued with a listener's number and he hopes to have some listening gear in the new year. He hails from Wangaratta. We hope to see you at the S.W.I. Convention.

Barry Thomson: ZL149, DX37A, hails from ZL land and is in VK land on a working holiday. He managed to buy "A.R." in a Sydney shop and enjoyed very much reading the s.w.l. page, and as he says, "It keeps him up with the latest DX." He has 240 countries confirmed and uses an Eddystone 750 rx.

Dave Jenkins: of Orbot, where's there is no ac. He only logged 84 pts. in the R.D. and forgot to send it in. During the winter he re-built a transistorised audio amplifier; he has a regenerative rx running into 11-1N5 det. and a 1N5 audio feeding into an AC70, OC70 to 1000 cycle oscillator. His antenna is 80, 40, 20 and 15. He's going to transistorise all his gear to keep up with modern times. In the near future he intends putting up a double extended Zepp for 21 Mc., favouring Europe.

Chas. Abernathy reports he is very happy with his set-up; has sent reports to 67 Amateurs. He has a 1000 cycle oscillator, which is very keen. He couldn't compete in the VK/ZL this year, but will be there in the next one. He puts on a good show. Chas. thanks very much, he'd like to take time out and help s.w.l.'s in any way I possibly can and I don't need any thanks, just the pleasure of hearing that you get results with your reporting to the Amateurs.

If any of you boys have problems dealing with s.w.l.ing or reporting, drop me a line and we will work it out together.

If you would write to me with a list of your QSL cards received, they will be included in the next month's newsletter. When in your DX ladder scores, please quote the number of cards you have received for all time (Amateurs).

John Hillard, the President of the VK3 S.W.I. Group, and myself would like to wish you all a very Happy Christmas. 73, good DX, Maurice L3055.

DX LADDER

L3042	Eric Trebilcock	Hrd.	Con-	No. of
L3022	Don Granley	298	250	40
L3074	Mac Hillard	193	52	13
L3035	Maurice Cox	127	28	18
L3065	Ian Thomas	126	18	13
VK4	C. Thorpe	114	82	33
L5031	C. Hutchison	84	5	5
L3010	Mike Ide	86	26	13
L3072	Tom Heyward	80	11	10
L2185	A. Chatto	79	—	—
L2158	V. Wilson	73	2	2
L2181	R. Thompson	73	2	2
L3068	Don Granley	65	4	4
L5020	F. Aslin	40	3	2
L2210	W. Chas. Abernathy	35	9	3
L2211	C. Abernathy	35	9	3
L5026	G. Smythe	28	1	1
L3077	Dave Fraser	65	—	—
L2101	T. Mills	18	1	1
L2152	T. Mills	14	2	2
L2055	F. Irvine	5	1	1
L2051	J. Woodman	4	—	—
L2057	R. Wood	3	3	3

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NOTES

FEDERAL

NEW ADDRESS FOR V.E.R.O.N.

V.E.R.O.N. (Vereniging Voor Experimenteel Radio Onderzoek in Nederland), the Society in Holland, requests that all correspondence, magazines, certificates, etc., only be sent to Post-box 9, Amsterdam-C, The Netherlands.

The official QSL Bureau address for the Netherlands is still the same as has been for the last 30 years: Postbox 400, Rotterdam, The Netherlands.

OPPORTUNITY

Here is an opportunity to obtain "Call Book Magazine" (the world directory of Amateurs) at about one-third normal price. Federal Executive has for sale several recent back numbers, most in near-new condition. Price including postage is \$1, and the following are available:—

Spring 1960 (U.S.A. section only), Winter 1959/60 (U.S.A. section only), Fall 1959 (world-wide), Spring 1959 (world-wide). Apply Bob Boase, 65a Franklin Street, Melbourne, Vic.

NEW SOUTH WALES

The mid-month evening at Atchison St. was well attended by members eager to be indoctrinated into the application of transistors in outboard converters. Sid ZSG described and demonstrated a transistorised crystal locked converter which was built into an AR7 coil box. Seems to me that miniaturisation is gaining popularity in the Amateur service and it is indeed fine business to have exponents in the art of miniaturisation come along and show us how. Thank you Sid for an interesting evening.

"A Review of Single Sideband Techniques" was the title of the lecture delivered by Max ZMP at the October general meeting. The meeting, which was conducted at Science House, was well attended. The lecturer outlined the development of s.s.b. from the days of Arnold's experiments in 1915 up to the present day. After explaining block diagrams of typical commercial s.s.b. tx's and rx's, Max made suggestions regarding the design of Amateur s.s.b. rigs. The vote of thanks was moved by a well known sidebander, Leo ZAC.

The Blue Mountains Section Field Day was conducted on 30th October, the report of which appears in other columns of the magazine. See you next month.

"Ode to a Billiard Cue." "A cheer for Shannon ZEL. Our mate from phenyl bay. And though he curses it like hell, The t.v.'s here to stay. His low pass filter's on the blink, His buffer's radiating. And sums all done in pen and ink Say, 'feeders radiating'. And still the field strength reads a lot, A millivolt too high, He'll have to cut it down somewhat Or else interview R.I. 'Speak louder Shannon,' say the 'ooms, 'Your modulation's down'. But what with neighbours and the rest, He wears a worried frown. But wait, Our Willie's found what's wrong. The answers comes at last. Just turn the knob round to the stop, And give them all a blast. So if one night you're sitting there and suddenly, Kerplomp. A cherry face lights up the screen, It's Shannon from the swamp."

BLUE MOUNTAINS FIELD DAY

The Lawson Swimming Pool grounds was the venue for the Blue Mountains Section's Annual Field Day held on October 30. Over 100 persons attended and Amateurs registering included: VKs ZCZF, ZEX, ZMZ, ZVVL, ZABK, ZHZ, ZAWJ, ZZAH, ZART, ZQA, ZNK, ZRM, ZASZ, ZWV, ZPK, ZAGF, ZQV, ZYAV, ZYFB, ZALJ, ZRU, ZYZZ, ZMTM, ZAZG, ZCK, ZZDK, ZADP, ZYB, ZAGN, ZYB, ZHO, ZED, ZEFW, ZALV, ZKPK, ZCZF, ZSW, ZEL, ZAPQ, ZVL, ZMP and ZCZ.

FEDERAL QSL BUREAU

I am always at a loss to understand why QSL cards do not interest ALL Amateurs, because without QSL cards, Amateur Radio is not just Amateur Radio. In all sincerity, I appeal to that DX-minded proprietor of certain three-letter VK2 call to change existing policy, collect his cards from the VK2 Bureau, and to save we QSL officers much unnecessary work in re-handling his many uncollected cards.

Ken Bale, ELAA, recently forwarded five choice QSL cards to this Bureau and requested that the five VK operators concerned ensure that their cards are sent to Ken, whose mailing address (for anyone interested) is: Pilot, C/o, Le Tournouet de Liberia Ltd., Robertsfield, Liberia, West Africa.

From reports received, the ship carrying our Federal QSL cards, CRITZ and XYL on their world trip, had to "go on a diversion course" in the Caribbean to escape hurricane "Donna". They ended up with anchor down for nearly a whole day in the vicinity of Cuba, riding on very high waves.

When you next contact CRITZ try and put yourself in his position. Why? Because Rutilio is located on the Island where for three years he has to endure living with no movies, no dance parties, no power and light except at night, no garden because of too much sand, and knowledge that Ibo Island, remote as it is, won't be a new one for the DXCC map! (CRITZ QSLs 100 per cent. all contacts and reports.)

Inward cards for VKR should now be sent to Ted Fuller, VK2FT, Box 41, Darwin, Northern Territory, Australia. The VK2 Bureau will continue as outboard bureau for VK3 members.

—Eric Trebilcock, BERS-195, Acting Manager.

FEDERAL AWARDS

Since 4/7/60, W.A.V.K.C.A. Certificates have been awarded as under:—

- No. 134 ZLHIA—R. C. Miller
- 135 W4ML—Tom Stewart
- 136 WCHY—C. Baker
- 137 KP4YT—Joseph Gonzales
- 138 W7UVR—Jim Smith
- 139 YU6MD—Dady S. Major
- 140 W0MLY Dick McKercher
- 141 VESCIO—Harry D. Gray.

—Alf L. Kissick, VK3KB, Awards Manager.

SILENT KEY

It is with deep regret that we record the passing of:—

VK5TW—Tom Welling.

HUNTER BRANCH

As in past years the monthly meeting after the October festivities was poorly attended. By courtesy of John Trail, and after Varley ZSF entertained us with the latest in tape recorders, we were able to enjoy some interesting films. In the absence of President Lionel, who was away attending ZHC's daughter's wedding, the Vice-Varley took the chair and allowed Secretary Gordon Sutherland read the minutes to the following: VKs Z2DF, ZRJ, ZEL, ZAKX, ZAYL, ZAEZ, ZAGR, Fyfe, Munn, and Graham. The Australian Temple and Basil Blyth, the latter being introduced to the mob by ZAKX as being the latest associate. It was decided to hold the final meeting of the year as of the usual Xmas variety—hope there will be sausage rolls available as in the absence of the Sydney boys I might get one this time.—ZAPQ and ZAMM please copy.

During last month the President and ZAWX were assisted by ZRU, ZAYL and ZAGR. Keith and his hangers on are progressing very well and soon hope to be applying for a station license. At present they are building power supplies and receiver and as the 'burgers are from Booragoo, Keith and his hangers on are sure that are surplus to your requirements would be appreciated by them.

Did you hear the story about a foreigner who crept across the northern border and tarried while at one ZEB, and whilst Eddie was wasting his time looking at t.v. the foreigner, let us call him Frank, crept outside and plugged in a g.d.o. No need to explain what happened next! However I can go one better than that. Bill ZEL has been causing t.v. with one of those cheap buzzers whilst teaching his nephew the code. The aforesaid nephew's father could copy the code on his t.v. set two days away and later that night, whilst Bill was showing me the set-up, he pressed the key and all the lights in Phenels Bay went out—boy it must be powerful.

Well chaps, don't forget the Xmas meeting on 8th Dec. and with the editor's permission I will fill in my prepaid space with an Odeur by an anon. author called Keith.

The weather was reasonable and despite an empty pool and some bus problems, the day was very successful. Actually the empty pool was a blessing for the XYLs with youngsters, they did not have to worry about there off-spring falling in water.

The main features of the day were the field events and running trial to form Dave ZAWJ won all three events—the 144 Mc. hidden tx, the 144 Mc. scramble, and the 1 Mc. scramble. A truly fine performance. Bob ZASZ acted as the fox, while Wal ZMZ set up his equipment for the blindfold hunt. A disposals sale attracted the usual bargain seekers and a lot of equipment and money changed hands.

Winners of the prizes for the various events was as follows: blindfold hunt, Allen Z2FW, gent's; 1st Mrs. ZAGN and Mrs. ZADZ, ladies. Gent's numbers, 1st Keith ZAEK, 2nd Nev. ZBR, 3rd Bob ZASZ. Ladies' numbers, 1st Mrs. ZEX,

CQ VK2, CQ VK2, CQ VK2!

Plan your holidays to include the

N.S.W. DIVISION'S

ANNUAL

CONVENTION

ON

27th, 28th, 29th JANUARY '61

★

Programme:—

Jan. 27: General Meeting.

Jan. 28: Convention at Durai.

Jan. 29: Mobile Rally and Field Day.

Watch the Bulletin for further details.

73 de VK2MP, Chairman,

Convention Committee.

2nd Dick 2ZVL, 3rd Mrs. 2WJ, 144 Mc. hidden tx, 1st 2AWZ, 2nd John 2ZAV, 7 Mc. scramble, 1st Dave 2AWZ, 2nd Geoff 2ACW, 3rd Graham 2AGN, 144 Mc. scramble, 1st Dave 2ZAV, 2nd Dick 2ZCF.

At the conclusion of the day the prizes were presented by the Section President, Keith 2ABK. The success of the day was the result of the work of a number of local Amateurs including 2ABK, 2QA, 2AVK, 2HZ, 2NK, 2RM, 2AF, 2MZ, 2ASZ and Associate Les Stahl.

CENTRAL COAST ZONE

Operation of the Gosford Radio Club station, VK3AFY at the Gosford High School Science Exhibition on October 13 was very successful. Geoff's 50w. tx was used into a long wire antenna 2ABK, 2QA, 2AVK, 2HZ, 2NK, 2RM, 2AF, 2MZ, 2ASZ and Associate Les Stahl.

A 2 mx link for reception purposes over half a mile distance proved very useful, as the conditions at the showgrounds were a bit noisy. Another item at the exhibition was a closed circuit t.v. system working into Channel 6 on three rx's. At one stage the camera was focussed on the radio operator at the other end of the hall using telephoto lens. The camera with amplifier valves was about the size of a home movie camera and the definition very good.

2FA1's usefulness with slow Morse transmissions for beginners, Trevor is building a new v.f.o., also a zero-MHz 807 modulator. Frank 2ZAFJ (new call) is making plate mod. for Command 2ZAFJ. Conditions on 40 during the day were excellent, but at night 80 mx was too noisy. 37 contacts were made including two old Gosfordians, John 2AVY and Rex 2YA.

A recent visit of note by members was to see Paul Schaeffer, VK2ALX/WK4WV, at the Hotel Florida, Terrigal. He had some interesting automotive programming equipment using an elaborate record player and several tape recorders, also push buttons. The party included 2EH, 2FJ, 2AL, 2MV, 2AI, 2AI and associate John Trewhella. Paul has since returned to W-land but we may see him again next year.

Your scribe 2ON has had success with g.g. 6AG7 as driver for 413 in s.b. tx. This makes three linear stages! I think one should stop here.

BOYS' RADIO CLUB, VK3ATQ

Lately we've got the habit of checking to see if the aerial is still up, day-time contacts are so scarce on 40 mx. Next year we hope to raise a real antenna farm to make things easier—some are on hand for a 20 mx three element beam.

Club members were recently welcomed in the shack of Kev 2ASV, where they saw a 40 mhz rig and to none for performance and appearance. A souvenir of the visit was a very fine speaker cabinet for the club station and some spare parts for the boys.

Allan 2HX, who took a few boys for a run one dinner hour, and they were able to exchange comments with the club station during the run.

Mike has just finished an extensive project to celebrate the arrival of a new soldering iron—a dual wave set and audio osc. for c.w.

practice, John is making a transistor rx when he gets the transistors.

With a bit of luck, all the club members will have been out, 2WVI by the time this is printed; if you have any QSLs left, you must have missed us! Please note, the club postal address is Box 87, Petersham; several very important letters have gone astray, and also some small packages addressed to the School; the new box should ensure safety.

A very Happy Christmas from all club members to every Amateur and S.w.l. 73, 2ATQ.

VICTORIA

The Maldon Convention was both a great success and at the same time a disappointment. From the point of view of those who attended, it was a very good Convention—they all had a very good time. Col 3FO and his helpers did a wonderful job in organising the show, but it must have been a disappointment that so few attended.

The dinner was beautifully prepared and was described as "sumptuous." The President of the Shire of Maldon was present (the dinner was held in the Shire Hall) and he confessed an early interest in radio himself!

The President of the Victorian Division of the W.I.A., David 3ADW and Secretary, Michael 3ZBO, reported on the year's activity, and much discussion took place regarding the question of liaison between zones and Divisional H.Q. It was suggested that zones be represented on Council, but as this was considered impracticable, a decision was made. Council send a copy of minutes to the zones after each meeting.

The ticklish question of Z calls using c.w., etc., was referred to Council.

On Sunday the boys went over the "Golden Age" gold mine—nobody found gold, but all had a very interesting time. The 2 mx "fox" was Len 3JLN, and 3ADW and 3ZCJ eventually caught him. After a very fine business lunch, the 80 mx tx hunt was held. Bob 3AJ, Len 3JLN and the 3ADW-ZCJ team spent a pleasant time scrambling over Mt. Tarrangona searching for a very well-hidden tx. (Jack was padding around with his tape recorder most of the time, which accounts for those strange things heard over recent broadcasts.)

After afternoon tea, all went home—having enjoyed themselves thoroughly.

The town of Maldon was "thoroughly prepared" for this invasion of "Hams." It is rumoured that they were surprised that Hams look almost like humans!

WESTERN ZONE

Merv, 3AFO, Horsham, has recently returned from his annual leave which he, XYL, and family spent in VK6 land. While away, Merv was able to join in our zone hook-up with 2AH and 2AL in VK6.

Gordon 3NX, of Warracknabeal, is busy rebuilding his shack, so guess we will be hearing him more often in the future.

Believe Chas VRIB of Gilbert Islands, has become interested in s.b. and is working on this type of rig at present. We expect Chas back in these parts next year.

Gordon 3GW, of Rainbow, is preparing for our Zone Convention which will be held there on Saturday, 3rd December.

SOUTHERN WEST ZONE

The big event of the month, the Jamboree-on-the-Air, has passed and the dust is settled.

What a wonderful event it was for both parties. At the face of Scouting have been unfolded and for 24 Scouts, the growth of Amateur Radio have, perhaps partly, been explained and many more left to offer a challenge. What a field of interest in many boys for recruitment to our ranks. Of 40 VK3 stations who were operating, 18 were members of the Zone; a pretty sizeable proportion. They represented 24 Scouts, 10 groups of Scouts and Guides. One heroic effort was the contact between 3XE with the Camarat boys and 3AKN on c.w. of course. Congrats to the Camarat group!

The success of this show is due entirely to John 3AGD and his deputy Lin 3ARL, to whom we must hand a large share of the credit. Conditions were not good but in spite of this some DX contacts were made. While on the subject of Scouts, this station made contact with VK4AH on the 20 mx band. VK4AH is run by the Ashgrove Scout Group in Brisbane and is believed to be the first Scout station in Australia. The operator is Bob VK4RB.

The W.I.C.E.N. practices have continued with the ranks thinning a little due no doubt to duties and work. Aiding practice procedure has been posted to each member and we hope it will be earnestly studied and applied. So far, though, little application has been in evidence. To go to the next stage to the network stage, we'll have to get busy. Other stations from outside have shown interest in practice sessions and one or two have taken part.

Tests have been carried out on the 160 mx band by Jim 3ABT and Kevin 3AKR with encouraging results. However, the small width of the band will require some better netting than has been the case lately or the network won't fit in the practice sessions and we will be required and what frequency? Let's have your thoughts on this please.

News is scarce this month, due to QRL, this month's date, 31st May. At the end of the month, recently under the professional eye of Kel 3NA, took the ATB2B with him and made a few contacts in spite of the awful noises. Brian 3JLN installed a 200 watt 813 and worked very simply. He reports that Kel, whose professional duties have kept him inactive, has interest in practice sessions. The new lady with the lamp there also was no stranger to kilocycles and things, for she was Sister JUDITH, or was brother Eric 3JAG, long time no-see.

Peter 3AFK and Eric 3JAG still to be found on 40 mx when 15 mx is dead. Quite a team those two when it comes to antennas. Eric does a lot of work on the 40 mx band, the sky hook and fits 'em up. Bill 3XE has been troubled a little with aquatic life in the goldfish. Bessie has many here have. John 3AGD and Don 3AKN, both at the same time, who has news of Leigh 3JL from time to time and the latest report to hand is most encouraging. Leigh has got a green king from the cards which his friends have sent. Just a thought chaps, are you still sending one occasionally or did the first one do the job. He will be there quite a while yet.

Well chaps, must get on to the next month's notes now as the Editor is waving the big stick and saying "get on with it." For the Zone, we wish you all a very Merry Xmas and plenty of f.b. QSOs during the holidays.

EASTERN ZONE

"Spring is sprung.

The grass is riz,

We wonder where

At least that was the story until Nov. 6 when the VK4s were in all day until about 2200K. Approximately twelve stations were audible in East Gippsland. A VK2 was also heard calling VK4 stations.

Peter 3ZDP reported hearing 3ZDI on background working 3ZCJ and 3ZCJ on 40 without success. The QRM was probably as thick as pea soup in Melbourne. The only other opening was on 28th Oct. when 3ZDP had words with 4ZIV at 1900K.

2 mx continues to provide some interest for the regulars. 3FO was worked by nearly all stations one Sunday evening and splendid co-operation between stations was mainly responsible. About the only one who failed to make the grade was myself. My converter 3ZCJ co-operated with 3ZQA and 3ZCJ reported contacts with 3ANQ at Warrnambool and 3ZQA has also logged contacts with 3AGV and 3ZAV. 3BW has been heard on several occasions at good strength.

Two new stations are now in Bairnsdale, but not yet active. 3ANV and 3ZDM are busy building equipment and both hope to be on the air by Xmas.

3DY has been staggering up and down mast with the antenna and both hope to be on the air by Xmas.

The Gosford Radio Club display at the Gosford High School Science Exhibition held on 13th Oct. All bands were worked and many stations contacted. Standing left to right: Lindsay 2ON, Major 2RU (President), Associates, Geoff 2MY, Geoff 2AII. Front row, left to right: Associate Perc Day, Les 2AKL, Roy Elliott (Z call), Fred 2ALA, John 2ND, Reg 2AI (Secretary), Ern 2EH, Bob 2IN.

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A Must For All Ham Enthusiasts

★ OHMS LAW CALCULATOR—OHMITE

This Rule is devoted to Resistance calculations, but also includes A, B, C and D scales. All calculations involving Volts, Ohms, Amps., and Watts may be made with a single setting of Rule.

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Sec. 2: 3.5 ohms—F.B. or Voice Coil.

Type MT30 40w. Semi Universal

With Impedance Chart.

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Power Rating: 40 Watts (Modulation)

Reversible mounting case with turret lug termination.

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Identical electrically with Type MT-15 now discontinued.

Reversible mounting case with turret lug termination.

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Type IT630

Primary: 4,500 ohms nominal, for 6V6, 6BW6, 6BM8, etc., at triode.

Sec.: To 6N7 Class B Grids.

Ratio: Prim. to half Secondary 2:1.
Frequency Response: 200-5,000 c/s.

Type IT545 (10 watts)

Primary: 4,000 ohms.

Ratio: Prim. to half Secondary 1.6:1.
For driving Class AB2 Grids from Triode Driver.

Type IT588 (5 watts)

Primary: 5,000 ohms S.E. or P.P.

Secondary: 7,100 ohms per side C.T.

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has physical energy. Anyone who has passed David's QTH lately might get the wrong impression. He will certainly live outside his house more than my in-laws have around their fowl-house!

Very little activity from Cliff AJ4T. I'll bet he was around, but mowing the lawn and causing more suffering for us as heaver types. See you all again, school next month. 3ASW.

MORWELL RADIO CLUB

The Morwell Radio Club was formed in September with, as one of its objects, the fostering of interest and appreciation of radio in the home and around the area. The club was formed as a result of the interest taken in the activities of the Morwell High School station, 3ANL, and has the use of the High School facilities which is much appreciated by all concerned.

Activities are so far organised around meetings held every Thursday evening and nights taken up with lectures or discussions on radio frequency gear, audio frequency gear, t.v. and receivers, and general club business in regular rotation. After the meetings the club goes on the air under the call sign VK3ANL.

Most of the members are at present going for either the limited or the tickets and quite a few finishing being cheques for the results of the October battle. The best of luck to those who attempted it—3ZFO.

MOORABBIN & DISTRICT RADIO CLUB

By the time that these notes are printed a new committee will have been formed. The best of it are expected to these new executive whoever they may be!

The past year has been a memorable one in such that the Club has progressed to a membership of 25, has consolidated itself in a new clubroom, erected aerials and put the club on the air once again. Look out for 3APC for that! Honorary Members: Centric, Dave, and Jack. During the year we held barbecues, crazy whist nights, white elephant auctions, 80 mX tx hunts, had film evenings, and technical lectures on all sorts of subjects. The committee has set quite a standard for the incoming to live up to, but I am hoping that they may even excel.

On 11th Dec. our Annual Picnic will be held, and on Friday evening, 16th Dec., our Xmas Party. Preparations are already in hand for these and our Christmas Eve party. The ship should be better than we have seen for some considerable time.

Now may I extend on behalf of all members of the Moorabbin District Radio Club the heartiest of Christmas Greetings, and may the New Year bring to you all that you desire.

QUEENSLAND TOWNSVILLE

Holidays are now fast drawing to a close, having returned to my Ivory Tower, as Stan 4SA would remark. Since last notes, a visit was paid to Owen at Mt. Isa. This completed the visit of each Amateur in outside Townsville in the far north with the exception of Thursday Island, where I am assured of a right welcome. The visit was made in the 4FE, "The land of swaying palms and dusky maidens." This personal visit has taken place over the last few years. With long talks on the radio, and general chit-chat, we can organise and protect our interests in our grand hobby. Some are mildly amused at the thought of each Amateur in the area are fighting mad, and want to know why the city chaps cannot organise lobbying tactics as done in U.S.A. The country chaps being separated by vast distances, whereas in the city the population is denser?

While at Mt. Isa I had the opportunity to look over our natural wealth in silver, lead and copper. No Amateur being in the uranium district of Mary Kathleen, did not see that town. Owen disappointed in the new high tension line, 132KV, which passes close to QTH and has made me receptive to QTH. Leaving Mt. Isa, a visit was paid to Sydney and again given a good welcome by the boys. A visit was paid to VK2 JZL, making a stop at St. Leonards and the Sec. Norm Beard, did all in his power to make me feel at home; only he would not part with one of those DC211 re-disposables. Back 24, made a stop at the Blue Mountains by car, while Jim 2AKU and Ade 2FM looked after the beach angles and set up beach flags. On the way back to the top of the mountain at Chandra 2ADE QTH in Casino and was able to see the new Tape Tone 6 mX rx he won in coming first amongst 10,000 entries. Who says we "Down Under" are on Top. Dried over his 6 mX QSL card from Canada, U.S. and Mexico.

In Brisbane for the October monthly meeting. Disappointed in not such a large roll up.

(Did you hear I was on the rampage?) As official drawer of the ballot for the SCRS2, made certain his plan of five came to the country chaps. Again missed my sparring partner, 4 Peter Rabbit and see by last month's notes he was at the Adelaide, was strict order from Jean to take it easy. Knowing his form, on a previous holiday, don't blame her.

Since returning home, noticed lack of activity on the various bands by the regulars except on 50 Mc. where great ragchewing takes place while waiting for openings to appear.

Stan 4SA, last week of the Adelaide remark in my previous notes and short all you chaps take heed of the "Editorial", Nov. "A.R.", and pull your weights. Don't sit on the sidelines and sneer, make it a New Year resolution to Give, and Give Help, till it hurts, and expand our frequencies and cut the Red Tape. 33, Bob.

SOUTH AUSTRALIA

The monthly general meeting of the Division which is never backward in coming forward, to wit, the VK3 Division, was held to a capacity audience in the clubroom and took the form of a "Buy and Sell Night". Outside of the Annual Xmas Get-together roll-up of members, this type of meeting night is the biggest crowd pleaser of all, and for the first time that the new clubrooms have been used, standing room only was the order of the night and very little of the usual business, general or otherwise, was transacted before the buy-and-sell commenced, probably because the Secretary, John 5JC, was absent, with or without leave is not known, and the audience settled down for the entertainment after the "Smoko" and the usual distribution of QSL cards.

The auctioneer was introduced to those assembled by "Have Wm Travel Colman, in a few well chosen words, which incidentally if uttered anywhere else would certainly have been taken as libel and thereupon that debonair, athletic, modest, what the well-dressed man about town is wearing type, lithely sprung upon the stage. This could probably be taken as something of an exaggeration, because I did not exactly spring on to the stage, but I swear that as six or seven of those assembled man-handled me on the stage, one of my feet was at least three inches off the floor, and if that is not a spring for me, what is? Sardonically handclapping, hoots and whistles, and genuine wolf calls were heard for at least two minutes due to the impact of my new Bermuda jacket and accessories to match, although I somewhat resented the remark from someone in the audience that "it will look better when it is made up into a coat."

Anyway, I knocked them all much to a row with my sartorial splendour, and that a couple of associate members addressed me as "Sir," after the meeting, so there! I felt that the night did not go so well as it usually does, mainly because I thought it started a little late with so much to get rid of, plus the unusually high percentage of junk available, and last but not least, a somewhat slow handling of the goods from the storeroom to the auctioneer. Probably the answer to it all was the fact that the order for the new hall in the new hall before and we were all not used to the conditions. This will be remedied, I feel sure, by the Council before the next night. I'll be sure to be there to be still auctioning gear, although it speaks volumes for all concerned that few had left for home even at this late hour.

The attendance was good. Lloyd 5OC, acted as money taker, assisted by the Treasurer, Les 5ZCJ, and both handled the situation with their usual dexterity. I felt here too that a



"With those Earth Bobs would bounce their signals some place else!!!"

OBITUARY

Mr. T. WELLING, VK3TW

Mr. Tom Welling, VK3TW, died suddenly at Mount Gambier, South Aus., on October 31. He was 61. He had returned home from a hospital after a long illness, suffering a heart attack five weeks earlier.

The late Mr. Welling, who was born in England, had been connected with Radio for 30 years.

He joined the Royal Flying Corps in 1916 as a radio instructor and was discharged in 1919. The following year he joined the Melbourne Commonwealth Wireless Club as a radio operator for seven years. During that period, he worked on 13 ships and travelled 40,000 miles to nearly every part of the last world. On his last trip from England to Australia with the Marconi Company he resigned in Adelaide in 1926 and three years later joined 5CL Adelaide, which was then a private company.

In 1931 he left 5CL and returned to England for a year working again as a ship operator. After returning to Australia he began work at 5AD Adelaide, in 1932. The following year he went to 5PI Port Pirie as a radio operator and was later appointed chief engineer at 5SE Mount Gambier in 1937.

He was an Amateur. Mr. Welling gained his first class P.M.G. certificate in 1919. He was always keen on c.w. and made many overseas friends on 28 megacycles. He was active on 40, 42, 48, 50, 52, 56, 58, 60, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 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3201, 3203, 3205, 3207, 3209, 3211, 3213, 3215, 3217, 3219, 3221, 3223, 3225, 3227, 3229, 3231, 3233, 3235, 3237, 3239, 3241, 3243, 3245, 3247, 3249, 3251, 3253, 3255, 3257, 3259, 3261, 32

was had by all and at the same time opportunity was taken to say bon voyage to Ken, who, if rumour is to be believed, was at times high into tears at the thought of leaving such a cheery bunch of Elizabethians.

The following evening there was a general meeting of the club and quite a few of those present at the "chindie" were conspicuous by their absence. Ben SBP entertained those present with some movie-type pictures taken in many places including one from Alice Springs when SBP/B was in residence recently. The club is increasing in popularity and its award, The Elizabethan Award, has been sent out to 26 applications so far, and more to come.

Clive SPE is heard squawking away during his periods at home and this duck-talk is really something that everyone in Elizabeth disconnects their antenna and r.f. stage, and even sometimes their mikes too, in order to listen. He is also busy making a prototype mobile transceiver which is going into production as a club project. Ben SBP is passing through a troublesome time with his four-wheel rig, understand that it is valve trouble and 80% won't fit. Ian 5QX is in the throes of rebuilding his rig to ensure that he has a little privacy in this world. It appears that the local goggle-box addicts are not only hearing him, but are reputed as seeing him as well. My sincere sympathies OM.

John SEV is regularly heard from Woomera via SWC on Monday evenings. Strange as it may seem, he is having considerable difficulty in obtaining the Elizabethan Award as he is only home at Elizabeth during week-ends, however there is no doubt that he will get it eventually. Woomera SWC, incidentally, is quite active with Elizabethian operators these days; recently SEV, SES, SPE and 5QX were contacted from there. The secretary of the Woomera Radio Club, Bill Jamieson, must be hard put to keep them all in order. Harry SEU is often heard on 21 Mc., but that back garden of his has taken quite a good bit of time that would have gone into Amateur Radio. Robbie SPF was heard a number of times on 14 Mc., but my espionage agent tells me that he has shot through to G-land for a while. Steve SHA is slowly getting ready for a grand debut on the bands, which according to all reports should not be long now. At the moment however, he just has the doubtful rating of being classed as "coming QRM on the band".

Tubby SNO is quite a busy little bee on Monday nights with the club session on 7 Mc. The call sign is 5LZ and with his harmonic, Jeff SNQ, at times hovering in the background, the call signs often get mixed up a trifle. My spies inform me that a strange structure is growing in Tubby's back garden, and they say that if it grows into what they think it is, then the satellites had better beware. Duck your head as you go past!

Incidentally, the phonetic alphabet for these two characters, SNO and SNQ, is 5 Never Off and 5 Never Quiet. How true, how true!

I recently referred to Col SKY and a publication "Splatter", which he often refers to in his contacts with John SDJ. To satisfy my curiosity, and also to make my face red, I received this week from Col several copies of the said "Splatter", and to my mortification and embarrassment it turned out to be the official publication of the Adelaide University Radio Club. Donning my sackcloth and ashes, I sat back and read the copies right to the end and can say without fear of contradiction that they made very interesting reading, being technical without being too technical, and carrying an editorial sense of humour which has to be read to be appreciated. The letter enclosed with the copies informed me that I would be put on the mailing list forthwith, and I look forward to receiving each copy. Many thanks Col, and my humblest apologies for my ignorance. However, now that I know that you are the Editor of the excellent publication, a certain coolness must now develop between us because I am allergic to Editors. I did intend to consult you the next time that I had a turnmy ache, but not now, because after the treatment that I have received from editors, past and present, I will settle for my turnmy ache.

Ron SVH is almost ready to go on the air, although at the moment he is having a little b.f.o. trouble, but with the ready assistance always available from the boys at the Mount, it should not take long to straighten out.

Claude SCH has been on one of his many holidays in the land of the Wise Men from the East (unless I have a bad memory, this joker has about ten or so holidays every year) and has returned home with the usual panthechnon full of new gear, etc. I don't know what he does with it all. Stewart SNS has launched his new rx, which by the way is so good that only the best v.f.o.'s. show no sign

of drift. No doubt he will be digging some of the rarer DX out of the QRM from now on, although it will be no good me trying to work him with the state of my v.f.o., he would only catch me as I tore up and down the band.

Leo 5GJ has been in Adelaide doing a course on transistors, and from this the local boys are forecasting a lecture at the meeting night in the near future. He has returned to the Mount again, and as my spy safely puts it, none the worse for the smog-laden air. What can he mean by that crack? David 5AW has been fairly active on all bands from 80 through to 1 mx. He had the misfortune to burn out a power transformer in his 40 mx tx, but should be soon OK. Pete 5FM/M, although not usually included in the E.S. notes, has been operating portable from that locality over a week-end recently and the rig behaved itself to everybody's satisfaction, particularly Pete's. Apparently he enjoyed his visit very much, and all are hoping that he can make a return trip soon.

Al SZCR is the latest arrival in Mount Gambier, and the boys extend a hearty welcome to him. This new blood could mean a renewal of v.h.f. activity in the area, which from all accounts would be very welcome. Johnny SKO passed through the Mount this month on a business holiday trip. Have not seen much of him lately, I even do not know if he is active on his beloved 3.5 Mc., but this I do know. I will bet that the boys at the Mount heard all about the merits of that band as against any other.

My co-conspirator at the Buy-and-Sell Nights, Norm Colman, is at the time of writing, an inmate of the Adelaide Hospital after a nasty fall down a trapdoor at his work, into a cellar. He finished up with a couple of busted ribs, a cracked collarbone, shock and concussion. I met his wife who was coming from the hospital on the second day and she told me that he was as well as could be expected, but was not anxious to talk and would probably be in the hospital for several days. Bad luck Norm, hope you will soon be up and about.

The letter to the editor in last month's "A.R." regarding the abolition of the signature of Roth 3BG stirred up quite a hornets nest in VK5, although Roth has quitted up such nests before. Knowing Roth, how-

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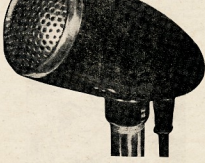
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ever. I think that he sits up such nests in all good faith. Nevertheless it is considered in VK5 that in these troubled times for Amateur Radio, it is no time to consider any subject of about the same importance as any one phase of the hobby in favour of another phase. After all, I don't see the necessity for editors, but I wouldn't have the hide to suggest that they be abolished on no flimsy an objection. We must never forget that one man's poison is another man's meat, and that there is no such thing as a free lunch. Once we forget this, we will soon be half raising one hand and saying, "Heil Hitler".

Rob 9RO, ex-5RG, by the time that these notes are being read, always assuming that someone has the opportunity to have to. —Ed.), will have returned to VK3 and his recent trip to Adelaide only a pleasant memory. I am going to see him again, if only at two general meetings, and we wish him well for the future and will be on the lookout for him on the bands. Believe it or not, I never thought that the day would come when I would write in such complimentary terms about an R.L. but you can't shut your eyes to facts, and probably age has mellowed my outlook on most subjects, but I don't today don't look like the agree that they did twenty years ago! That should keep me sweet for another twenty years.

Well, well, well, I thought that I had wrapped it up for this month, but it has suddenly struck me that this month's notes will appear in the November issue, although I sent them in October. I don't usually write too many notes each month, in fact the editor, may his pen be ever blessed, has been writing on my back to write more, ahem! but I am sure he will allow me a little space to say on behalf of the VK5 Division and the Council, a Merry Xmas to all Divisions and members, and may Father Xmas bring you all that you desire yourself, and with plenty of money, let's hope, he brings the editor something to often that hard and cold heart of his, so that a poor and struggling writer like myself can look forward to a little more VK5 news in my own private publication. (Will be pleased to publish both of them.—Ed.)

WESTERN AUSTRALIA

Well chaps here we are back again after two months' silence, due to being snowed under with work (that's the curse of the drinking class), and receiving any news from any VK8s as yet and the information is very hard to accumulate by myself, so what about it? I am receiving any news from any VK8 rig, that special contact or anything else of interest to other VK8s.

VK8 6CL, 6MF and 6EW decided to spend a few days visiting Carnarvon and causing some QRM last month and thanks to Noel I worked a mobile most of the way and when in the Murchison area they spotted a fox which Noel 6MF was about to shoot, when John 6EW, who was QSOing at the time, shouted "Get me his ear" and Noel 6CL, who was holding the voice of 6EW for he highlighted it out of the way before a shot could be fired.

On arrival at Carnarvon a red vehicle with old letters "Carnarvon" on the back of their wagon, the driver approached Noel 6MF and asked if he was either 6CL or 6MF. Noel was about to deny all knowledge of the said call signs, but the driver did not look too official and confessed to his call sign. I think Noel must have lost one page of his letter because he did not say how long he lost his ticket for or give any further information on this contact.

Noel then goes on to say that they visited the "Mallee" north of Carnarvon, and Ian 6CL found something which can blow harder than he, they were blowing water some 50 feet into the air on a relatively calm day. As they were along, Noel 6CL could not find anybody on the band to work mobile, so he put his head out the window and saw a cow with a bunch of cows. He did it so well that 6MF took some time to realise it was 6CL who was making the cow noises (C. Moo, C. Moo, C. Moo, de VK8CL).

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Once again the cheerful voice of Pete HPTCC aboard the tanker "Alvenus" was heard on 80 mc. It is six months since last we heard from Pete, he has been back to G-land and is now on his way to Queensland from the Persian Gulf and then back again.

Well at last we have the slow Morse under way with four starters, Clem 6CW, Ray 6WU, Joe 6CO, and yours truly 6PH. This led me to have a 2 1/2 hours QSO on Sunday night as great interest was shown and lots of suggestions were thrown into the mixing pot, and I think we all have come up with ideas to make a good session, which is to be on 80 mc every Tuesday, Thursday and Sunday, 2000 to 2100 hours, and split up as follows: First 20 minutes, 6 to 8 words a minute, then read text, next 20 min. 8 w.p.m., increasing to about 10 w.p.m., then read text, then finish off with about 14 w.p.m. The sessions will continue like this till after Xmas, after which we may be able to increase the number of nights. So let's have your ideas, but make them constructive, please.

It is nice to hear Jack 6BU back on the air again after his bout in hospital. He is still unable to bend his neck, but the brace has shortened him about six inches in the front, but he is stretching back to normal, another three inches to go. He is getting much better, had a good rest, because his rx is louder and clearer than it ever was, even his mobile gear, which is built into a Command tx box. He found under the hood a 100 ohm resistor, centre loaded 5 ft. whip, his rx is a dual wave Jap. transistor portable.

A similar set-up is used by Eric but his rx is a valve converter, feeding into his radio. Eric's tx covers 40-20-15 mc against Jack's 40 mc. Good luck Jack and Eric, keep it up, one of these days we will start field work here in VK6 and then you can show us how.

Well, chaps, all that remains is for me to say a Very Merry Christmas to all VK6s and S.W.s., may all your DX logs grow to overflowing in the New Year and I am sure all VK6s pass on their Xmas Greetings and 73 to all VK6s using the very best of DXSOs with them in the coming year.—73, 6PH.

TASMANIA

Although conditions were generally very poor, the Jamboree of the Air over the weekend of 22nd and 23rd October was an outstanding success so far as VK6s are concerned. Sixteen stations are known to have participated and nothing but good can arise as a result of the very favourable publicity.

Keith TRX had the best of conditions by going camping near Sorrell with a Scout troop from Belterrie and he has nothing but praise for that location. Bob TOM is again feeling right after the severe frost he had at work when the active lead came into contact with the earth to the electric drill at the back of the power point. Charles TCH was operating mobile marine over the week-end, 5th and 6th November, and he certainly chose a rough week-end, with violent storms most of the week. Our first DX contact was good. Chas 7KA was very lucky.

Ken 7KA is now convinced that the 813 in his rig is a very rugged tube. Can you imagine his surprise and pleasure when he realised that the tube control unit function properly after he had effected repairs, following the removal of the 1000 volt h.t. while the screen was operating at its normal potential? Ken also counted the number of tubes in his shack, and came to the astounding result that 63 were in operation for over 13 hours continuously during the Jamboree of the Air.

At the time of writing, the club room fund stands at £29/10/0, so we have made a little progress towards our preliminary goal of £2,500. Remember the auction of donated gear for the general fund is under way, and you surplus gear and buy gear you need. Also, remember the Cabaret on Friday night, 16th Dec, a very pleasant evening.

Len LLE did a remarkably good job as our lecturer at the November general meeting on the subject of using a t.v. turret as the basis of a v.h.f. rx. We were all pleased to welcome George 7GC at the same meeting. I understand that TCK and WGZG have also been in town recently. TCK is working on a new building and enclosing his rig, and he is passing through some teething troubles, especially with the new modulator, but, knowing you chaps, those troubles will soon be over-come.

The Federal Contest Committee members, and their willing helpers, have elected that the R.D. Contest be again behind them. We now await the result.

That raucous noise you have heard on the bands since the middle of October might not

be Asiatic in origin, so just take another listen, it could be my phone. They tell me it sounds natural. With best 73, Ian 7ZZ.

NORTH WESTERN ZONE

Well here we are once again with pen to paper in an attempt to record a little of the activities of the Zone during the past few months.

Our last meeting was held at the Burnie Fire Brigade where a lot of questions were asked and some satisfactorily answered, I hope. The two mobile units, which incidentally are now absolutely completed and believe it or not working, were tried for size in the respective vehicles. No. 1 truck produced no troubles, but No. 2 has an auxiliary pumping plant in the front with the driver, which operates with much water splashing; really ideal for radio equipment! Anyway, a spot was found in the seat cavity behind the driver. The layout of the base station was decided on and the Fire Brigade will be erecting shelving, towers, etc. The base tx and rx are practically completed, and the modulator and power supply for same is well under way and I do believe a target date of November 1st is talked of in the right circles for "D" day.

A goodly number were present at the meeting and many other topics were naturally discussed. Syd TSB brought along some interesting news of the Capt. Grey being received at "sear". Supper was served in the f.b. amenities room and some rare demonstrations of table tennis were provided by sundry members.

HAMADS

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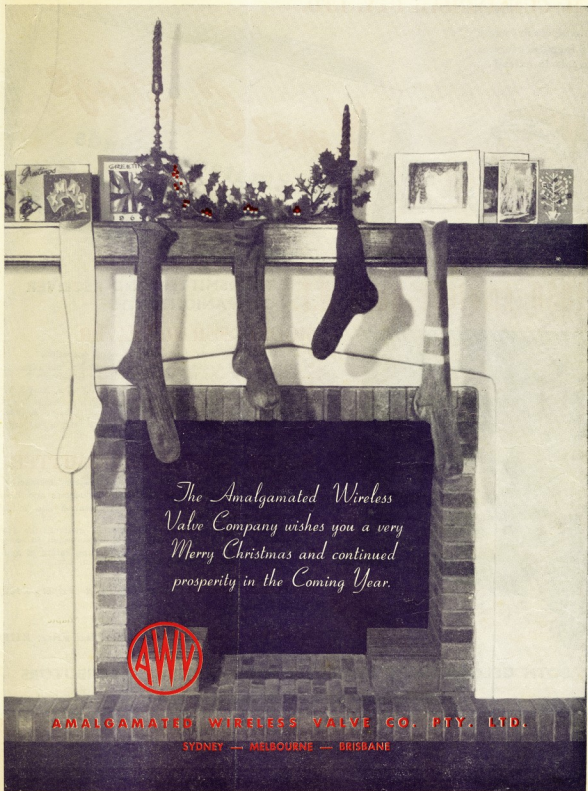
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